DISARMAMENT

A periodic review by the United Nations

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Political Change, Future Security Needs and Military Expenditures

The End of the Cold War and Declining Military Expenditures

Lawrence J. Korb

Since the United States adopted the policy of containment in relation to Soviet communism in the late 1940s, its defence policy has rested on two pillars: deterrence of a Soviet nuclear attack on the United States or its allies and the capability of responding quickly to a Soviet and Warsaw Pact blitzkrieg attack on Western Europe. It was felt that if the United States forces could handle such a contingency, they could handle smaller conflicts anywhere around the globe.

In carrying out this policy, the United States has spent, in fiscal year 1991 dollars, about $8 trillion, or about 7 per cent of its GNP and 35 per cent of its federal budget over the past 50 years (table 1). In addition, it has fought two protracted land wars in Asia, which resulted in the deaths of over 100,000 Americans, and it has employed force "without war" more than 200 times. In many ways the cold war was more costly to the United States than the Second World War.

At the close of the decade of the 1980s, the United States had over 13,000 nuclear weapons in its arsenal and a conventional force of 32 ground divisions, 36 tactical air wings, and 550 ships. Its annual defence budget stood at about $300 billion and defence expenditures consumed about

Lawrence J. Korb is Director of the Center for Public Policy Education, Government Studies Department, at the Brookings Institution.

Table 1
Trends in Defence Budget Authority, fiscal years 1951-1990
(*Billions of 1991 dollars*)

Year	*Authority*	*Year*	*Authority*
1951	296	1971	242
1952	395	1972	234
1953	379	1973	224
1954	233	1974	215
1955	203	1975	208
1956	207	1976	216
1957	216	1977	227
1958	212	1978	224
1959	225	1979	224
1960	217	1980	228
1961	218	1981	257
1962	251	1982	292
1963	254	1983	309
1964	243	1984	329
1965	233	1985	351
1966	279	1986	335
1967	305	1987	322
1968	309	1988	316
1969	298	1989	311
1970	269	1990	303

Non-war-year average	
1954-1960	216
1961-1965	240
1973-1980	220
1981-1990	310

Sources: Office of the Assistant Secretary of Defense, "National Defense Budget Estimates for FY 1989-1990", pp. 61-66; and Lawrence Korb and Stephen Daggett, "The Defense Budget and Strategic Planning", in Joseph Kruzel, ed., *American Defense Annual*, 1988-89 (Lexington, Mass., Lexington Books, 1988), p. 45; and Dick Cheney, *Annual Report to the President and the Congress*, January 1990, p. 69.

6 per cent of its GNP and 25 per cent of its total federal budget. Persons, both civilian and military, working for the

Defense Department and persons employed by the defence industry number 6.5 million and account for 5.6 per cent of the total United States labour force.

Although the non-United States members of the North Atlantic Treaty Organization (NATO) did not spend the same absolute or relative amounts as the United States on defence, their expenditures were substantial—about $3 trillion in today's dollars. Since 1950, the NATO nations have spent an average of 3 per cent of their GNP on defence and have contributed the greater part of the Alliance's ground, air and naval forces.

While it is difficult to calculate the exact amount of roubles the Soviets have spent on defence, it has been quite substantial (table 2 gives CIA estimates). Even Soviet scholars acknowledge that they have spent about 15 to 20 per cent of their GNP on defence over the past 40 years. More important, the Soviets have obtained nuclear parity with the United States and an advantage in most categories of conventional forces. The Soviets too have resorted to force on several occasions during the cold war, most notably to crush freedom and independence in several countries of Eastern Europe and to try to maintain a Communist government in Afghanistan.

Though few realized it at the time, the beginning of the end of the cold war came with the election of Ronald Reagan to the presidency of the United States in 1980 and the death of Leonid Brezhnev, the Chairman of the Soviet Communist Party, in 1983. Ronald Reagan came to office determined to make America No. 1 again and to show the Soviet Union that the United States had the economic might to beat the Soviet Union in an arms race. This tactic might not have worked with Brezhnev, who doubted the willingness of the United States to support sustained increases over the long term and who seemed unaware of the widening economic gap between the Soviet Union and the West. Andro-

Table 2
CIA estimates of Soviet defence spending and defence as a percentage of GNP, 1955-1982, plus extrapolations, 1983-1989 (*Outlays in billions of 1970 roubles*)

Year	*Outlays*	*Percentage of GNP*	*Year*	*Outlays*	*Percentage of GNP*
1955	30	17	1974	57	13
1956	29	15	1975	59	13
1957	26	13	1976	63	13
1958	26	12	1977	63	13
1959	26	11	1978	64	13
1960	27	12	1979	66	13
1961	30	12	1980	67	14
1962	34	13	1981	68	13-14
1963	35	14	1982	70	13-14
1964	38	14			
1965	39	13	*Extrapolations*[a]		
1966	40	13			
1967	43	13	1983	71	14
1968	46	13	1984	73	14
1969	48	13	1985	74	14
1970	49	13	1986	76	14
1971	50	12	1987	78	14-15
1972	51	13	1988	78	14-15
1973	53	12	1989	78	14-15

Sources: Abraham S. Becker, *Sitting on Bayonets: The Soviet Defense Burden and the Slowdown of Soviet Defense Spending*, JR5-01 (RAND-UCLA Center for the Study of Soviet International Behavior, December 1985), pp. 4, 13; and author's estimates.

[a] Based on a 2 per cent real growth between 1976 and 1987, and zero real growth since 1987, as announced by Gorbachev, *New York Times*, 31 May 1989, p. A 10.

pov, the former head of the KGB, who succeeded Brezhnev, knew from his intelligence agents just how precarious the Soviet economic situation really was. Accordingly, he took the first tentative steps towards ending the cold war. However, it remained for his protégé, Mikhail Gorbachev, to finish the job. Gorbachev, who came to power in 1985 after

the untimely deaths of Andropov in 1984 and Chernenko in 1985, moved rapidly to turn the attention of Moscow towards its own internal problems. He replaced the Brezhnev doctrine of intervention with the Sinatra doctrine of letting each part of the Soviet empire do it its way.

In his five years in office, Gorbachev has removed Soviet troops from Afghanistan, concluded an agreement with the United States on intermediate-range nuclear forces (the INF Treaty); inaugurated the strategic arms reduction talks (START) and talks on the reduction of conventional forces in Europe (CFE); allowed the Eastern European nations to establish their own governments and expel Soviet military forces; and made unilateral reductions in his own forces. The net result of all these changes has been to transform the Soviet Union from an expansionist Power into one focused on holding together its own nation, economically and politically.

The United States, because of its own economic situation and because of the actions taken by the Soviet Union, has begun to reduce the level of its own military expenditures. Between 1980 and 1985 defence spending in the United States grew by more than 50 per cent in real terms. However, beginning in 1986, defence spending dropped by 13.6 per cent in real terms. More important, the United States reduced its planned level of defence spending by $600 billion, or almost 30 per cent (table 3).

It is clear that United States defence spending will continue to decline. Whatever else the political changes in Eastern Europe may imply, they do mean that the United States does not have to be prepared to wage war in Europe with little or no warning. Rather than having to put in place 10 divisions, 100 tactical air squadrons, and a Marine Corps expeditionary brigade in Europe within 10 days, the United States now has at least six months to respond to a Soviet attempt to move against Western Europe. This will allow

Table 3
Department of Defense Five-Year Plans
for fiscal years 1986-1990
(*Budget authority in billions of current dollars*)

Plan	*1986*	*1987*	*1988*	*1989*	*1990*	*Total*
Administration request February 1985	314	354	402	439	478	1 986
Administration request February 1986	281	312	332	354	375	1 654
Administration request January 1987	281	282	303	323	344	1 533
Actual authorized	281	279	284	290	291	1 425

Sources: Department of Defense, *Annual Report,* Fiscal Years 1986, 1987, 1988, 1989, 1990.

the United States to maintain a much smaller active force at a much lower level of preparedness. Moreover, since the United States and the Soviet Union are just about to conclude the START agreement, the United States will not have to continue modernizing all these areas of its strategic triad besides moving towards deployment of SDI.

Coming on the heels of the Reagan buildup, which left the United States military with a modern well-equipped force, the end of the cold war will allow the United States to cut its military expenditures significantly. President Bush has estimated that between now and 1995 defence expenditures will fall 2 per cent a year or 10 per cent in real terms. Most experts expect Congress to cut the budget by more than 5 per cent per year. As a result, United States defence expenditures in real dollars will be about half their present level within a decade. If this occurs, United States absolute and relative defence expenditures will fall to their lowest level since the Korean War.

Even spending $150 billion or 3 per cent of GNP a year, the United States will have a robust force. Spending

$150 billion will buy 22 divisions (11 active and 11 reserve), 24 air wings (12 active and 12 reserve), and 400 ships backed by 3,000 nuclear warheads. This will be more than adequate to project United States power around the world and ensure nuclear deterrence while keeping sufficient forces in reserve as a hedge against a reversal of the political changes in Europe. Table 4 outlines the current and future shape of United States defence spending.

Table 4
Defense Authority, fiscal years 1990-2000
(Billions of FY 1990 dollars)

	1990		*1995*		*2000*		*Change 1990-2000*	
	Amount	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*
Military personnel . .	79	27	63	28	40	26	−39	−49
O & M . . .	87	30	66	29	43	28	−44	−51
Procurement	83	28	56	25	37	24	−46	−53
RDT & E . .	37	13	36	16	28	18	−9	−24
Other*	8	2	6	2	4	3	−4	−50
TOTAL	292	100	227	100	152	100	−140	−48

* Including construction of family housing and offsetting receipts.

Because of their own economic and political difficulties, as well as a declining military threat from the West, the Soviets will also be compelled to reduce their military burden significantly over the next decade. In May 1989 the United States intelligence community concluded that Gorbachev would reduce the outlays for Soviet weapons by 20 per cent over the next two years. In March 1990, CIA Director William Webster stated that changes in the Soviet Union were irreversible.

While probable, these reductions in military expenditures are by no means inevitable. It will be necessary for the United States and the USSR to conclude the START and

CFE agreements and then move on quickly to START II and CFE II. Moreover, it will require the United States and its allies in the North Atlantic Treaty Organization (NATO) to provide economic and political assistance to Eastern Europe and the Soviet Union to enable them to make the transition from planned economies and authoritarian political systems to market economies and pluralist political systems. Not to provide this assistance will mean not only that the West would not feel able to reduce its military burden, but that it would have squandered the $12 trillion it has invested to win the cold war. Finally, both the Soviet Union and the United States must develop economic adjustment plans to help their industries move from defence to non-defence areas. Not to do so would provide an incentive to keep defence spending artificially high.

Political Change, Future Security Needs
and Military Expenditures

The End of the Cold War and Soviet Military Spending

Sergey Rogov

The bipolar structure of international relations after the Second World War made arms control mainly a Soviet-American affair. The Soviet-American relationship is of paramount importance to international affairs in the contemporary world. If this relationship is stable and constructive, then our interdependent civilization has a good chance to survive the nuclear age and the challenges of other global problems created by the gap between rapid technological improvements and slower social progress. But if the United States and the Soviet Union enter a nuclear conflict, they will destroy not only each other but also human society the world over, at least as it is known at present. If nuclear suicide is avoided but nevertheless the high level of ideological tension and the preoccupation with the nuclear arms race persist, that will greatly complicate the solution of the pressing problems of ecology, raw materials, poverty, starvation and disease, solution of which is vital to the survival of the civilization in the twenty-first century and beyond.

The system of international relations created after the Second World War was based on ideological and military bipolarity. The combination of ideological de-legitimization of the other side with the threat of nuclear devastation defined

Sergey Rogov is Head of the Military Department of the Institute of the USA and Canada, Academy of Sciences of the USSR, Moscow.

the American-Soviet rivalry. The geopolitics of the cold war between the United States and the Soviet Union was based on the notion of the mortal rivalry between capitalism and socialism, with the whole planet as the battleground for their competition. American-Soviet relations were understood as a zero-sum game, in which the interests of each side were seen as contradictory to those of the other.

Ideologies created such dehumanized images of the enemy that "the other side" was considered to be an absolute evil which would understand only the brutal force of nuclear weapons. In the United States the ideological doctrine of containment of communism led to the military concept of nuclear deterrence. The arms race and the creation of a favourable balance of power have become not merely a continuation of American policy, but a substitute for it. For the White House, force became not only a means but an end in itself.

The United States, as the more powerful nation, led the arms race, with the USSR following, and having to react accordingly. This chain of action and reaction (sometimes over-reaction) created the conditions of "mutually assured destruction" and strategic parity. Nuclear deterrence became mutual and the United States lost its historic invulnerability to a foreign military threat.

For many years, arms control was blocked by the different perceptions of the notion of security on the part of the Soviet Union and the United States. In Russian the word translated as "security" means "absence of danger"; while in English the term means "guarantee against danger". In the 1950s and 1960s the Soviet Union supported complete disarmament while objecting to "arms control without disarmament". The United States was more interested in verifiable partial measures than in disarmament.

The problem is how to reconcile the two approaches. In the 1970s the USSR accepted the idea of partial limita-

tions, which made it possible to reach the SALT I and SALT II agreements. But these limitations failed to reverse or stop the arms race. That brought on another round of the cold war in the early 1980s.

The conditions of mutual deterrence led to recognition of a common interest in regulation of the military competition, an interest which led in the early 1970s to a number of formal agreements on "the rules of the game", aimed at maintaining the stability of the military balance. Strategic arms limitation coupled with the ABM Treaty did not stop the arms race, but channelled it in less threatening directions. As a result, the détente of the 1970s brought stability in the arms race rather than the intended strategic stability.

While diminishing the danger of a nuclear war between the United States and the USSR, détente did not prevent their involvement in regional conflicts. The ideological bipolarity projected their competition into numerous conflicts in the third world, with an inevitable backlash on Soviet-American bilateral relations. The geopolitical notion of the linkage between regional conflicts and arms control undermined the structure of détente.

The lesson of the 1980s proved once again the dangers of re-ideologization and re-militarization of Soviet-American relations. The source of danger is ideological and political competition between the two countries. Thus, security is first of all a political and not a military problem.

In the military sphere the balance of forces used to be the means of security. It is possible to have a defensive balance, when the conventional forces of both sides are sufficient for defence of their territory, but not for offence; but this is impossible with nuclear forces, which have absolute power of destruction. Thus for both sides a nuclear war is the main danger—a danger which will remain as long as nuclear weapons exist.

The principal interest of each side—namely survival—

cannot be realized unilaterally. This implies interdependence as regards security, and the instinct for self-preservation can be realized only as a matter of mutual interest.

The bipolar military structure is an anachronism in the existing conditions of increasing economic and political multipolarity and diversity. Both the USSR and the United States are interested in an orderly transition to an interdependent multipolar world—and that demands demilitarization and de-ideologization of the Soviet-American relationship.

Gorbachev's new political thinking led to a new conclusion regarding security, one which recognized that the present high level of the nuclear balance ensures mutual danger. Real security in our age would be ensured by the lowest and not the highest level of strategic balance, which would therefore not include nuclear and other weapons of mass destruction. This would require a continuous process of arms reduction, until a nuclear balance would be reached at the lowest possible level.

The complete elimination of nuclear weapons is not an immediate task but should be kept in mind as the end-point. It can become a practical task only after a comprehensive system of international security is established, which demands a co-operative shift to a nuclear balance at the lowest possible level between the United States and the USSR (minimal nuclear deterrence) and to defence sufficiency by NATO and the Warsaw Treaty Organization. But the most important task is to realize the potential of the United Nations, which was created as the global security mechanism. The normalization and stability of Soviet-American relations will make it possible to realize the Organization's potential.

The problem of United States and USSR security can be discussed on three levels.

Soviet-American Mutual Security

Soviet-American security has nothing to do with the kind of military alliances that American mutual security treaties establish. Nor is it a traditional adversarial relationship. It should be a co-operative relationship in which neither side is interested in creating too great a threat to the other side.

Strengthening Strategic Stability

The task of strengthening strategic stability demands the elimination of destabilizing strategic systems, while continuing the process of numerical reductions after the strategic arms reduction talks (START) (50 per cent reduction plus negotiations for another set of 50 per cent reductions). As long as counter-force weapons continue to be deployed, the continuation of negotiations for further reductions may be impossible.

Mutually Agreed Minimal Level of Nuclear Deterrence

The mutually agreed minimal level of nuclear deterrence may vary from several hundred to several thousand strategic nuclear warheads. The numbers depend on several factors, among them:

—An unacceptable damage factor;

—The question whether there is a retreat from counter-force postures;

—The vulnerability of retaliatory forces;

—The capabilities of third nuclear Powers;

—The "nuclear winter" factor;

—The reduction of conventional forces.

Limitations on Strategic Defences

Strategic stability must encompass both offensive and defensive weapons. They should be treated as a system in which all components depend on one another. After

START-I this interdependence has to be protected through the following measures:

—Strengthening of the ABM Treaty;

—Limits on strategic air defences linked to limits on air-breathing systems, including cruise missiles;

—Limitations on anti-submarine warfare (ASW) against strategic submarines;

—A ban on anti-satellite weapons (ASAT).

Establishment of Transparency: *Glasnost* in the Military Sphere

The co-operative régime of security should lead to the elimination of unnecessary and counterproductive secrecy, which only fuels mutual suspicion. This régime may include:

—A joint system of verification;

—A network of centres for the control of military activities;

—Control over testing of new strategic and improved conventional weapons.

Control of Military Production and Conversion of Defence Production

The problem of control of production will become increasingly important at lower levels of weapons. Even the most sophisticated system of verification of arms reductions would not completely exclude the danger of cheating and secret stockpiling of weapons. There is also a possibility of a sudden breakthrough in new weapons development.

To deal with such problems it is necessary:

—To have a regular exchange of information on military production and research and development;

—To establish on-site inspection of the most important types of defence technologies;

—To develop parallel plans of conversion of key defence industries;

—To organize co-operation in conversion of similar production processes for civilian purposes;

—To develop, jointly, safe ecological technologies utilizing the potential of the defence-oriented economic sectors.

Establishment of the Mutual-Security Mechanism

Establishment of a mutual-security mechanism would require:

—Institutionalization of the negotiation process;

—Mutual assessment of the greatest threats;

—Mutually accepted criteria for the deployment of new weapon systems (negotiations before, not after, deployment).

Evolving the Security Systems of NATO and the Warsaw Treaty Organization

The drastic political changes in Eastern Europe and the progress at the Vienna negotiations are opening the way for the building of the common European home, which would overcome the inter-bloc confrontation and create a new security régime in Europe.

Shift to Common Principles of Defensive Doctrines

The entire range of defence activities of the European countries has to be restructured to meet the criteria for defensive sufficiency. That requires a solution to the problem of conventional deterrence which would eliminate excessive offensive capabilities while deterring a surprise attack. Deterrence by denial of the prospect of victory (not by fear of punishment) leads to non-offensive defence, which allows for protection of one's territory but does not allow for domination over the opponent's territory.

Asymmetrical Reductions of Forces

The purpose of the Vienna talks after equal ceilings

are reached for NATO and WTO should be the dismantling of the mechanism of military confrontation between East and West (without an early disbanding of the two alliances) in order to achieve a general military balance in Europe (Vienna II). That requires not only reductions of forward-deployed forces of the two super-Powers, but also a co-operative approach to the problem of fast reinforcement. The problem of the mobilization of resources must be tackled also. After the elimination of disparities the Soviet Union and the United States will probably discontinue their large-scale military presence in Central Europe, although their symbolic presence may be needed for some time after that as a commitment to stability and peace in the region.

After the Vienna I talks bring about a more stable configuration of ground forces, some new approaches towards naval limitations will be needed.

Special Régime Zones

The concept of mutual confidence-building measures allows for a wide variety of steps aimed at greater trust among all the parties concerned. These may include "disengagement zones"—zones that exclude specified offensive weapons or zones of limited military activities.

The solution of the German problem and the signing of the German peace treaty which will probably be the result of the two plus four interaction will create a set of arrangements that will permit German unification. The German process and accompanying four-Power understandings should be linked to the CSCE process in Vienna and to further agreements on lowered troop ceilings for Central Europe.

Mechanism of Interaction between NATO and WTO

The European process (directed towards developing a common European home) should lead to a regional security system, surpassing the old bloc relationship. NATO and the

Warsaw Pact may survive in a modified form, but with less military and more political roles. It is also possible to envisage direct contacts between the military organizations of the two alliances and a linkage to the bilateral Soviet-American mutual security mechanism.

The USSR, the United States and Comprehensive Global Security

The end of the cold war gives rise to the need for "rules of behaviour" in regional military activities. Such rules should include:

—No direct involvement of the United States and the Soviet Union in regional conflicts;

—The end of subversive and paramilitary activities against legitimate governments;

—Limitations on the military presence of the super-Powers in the third world.

While the USSR and the United States cannot impose their political solutions on regional conflicts, they can help in creating positive conditions for negotiations between the parties, leading to such solutions.

The Arms Trade Problem

The new Soviet-American interaction can be conducive to the prevention of an intensified arms race in the third world. Their co-operation in limiting the arms trade is needed even more in light of the forthcoming force reductions discussed by NATO and the WTO, which would release tremendous arsenals of weapons from Europe. The Soviet Union and other Warsaw Pact countries will have to remove from their arsenals about 40,000 tanks, more than 42,000 armoured personnel carriers (APCs) and about 50,000 artillery systems. NATO will have to give up a smaller number of weapons, though a number that is still enormous by third world standards. Urgent negotiations are

needed to prevent attempts to dump those arms in the third world.

Other measures may include:

—Co-operation in helping to develop regional plans for arms control (taking advantage of the experience and methods of Soviet-American and NATO-WTO agreements);

—Control of missile technology trade;

—A ban on chemical weapons.

Of special importance is a new effort to strengthen nuclear non-proliferation, as more States are reaching the nuclear threshold.

Strengthening the UN Peace-Keeping Role

The new Soviet-American relationship may help to give a boost to the Security Council and its original purpose of maintaining international peace and security. It may even become possible after 45 years to review the role of the Military Staff Committee and create more efficient tools for the international community. While direct American and Soviet military involvement is hardly advisable, the United States and the USSR can provide transport and logistical support for the United Nations peace-keeping operation besides ensuring the necessary political support. The USSR and the United States can also play a crucial role in solving the problem of financing peace-keeping operations. Together with others they can contribute to the establishment of a global system for monitoring the implementation of agreements in the field of international peace and security.

Military Spending

Until 1989 the Soviet Union did not provide much information about its military forces and its defence budget and this prevented any serious discussion of comparative expenditures. The official Soviet figures of 17 billion to 20 billion roubles per year were not believed. The enigma of

the Soviet defence expenditures was widely debated in the West. In the 1970s and 1980s the CIA, using so-called dollar estimates of the Soviet military budget based on the dollar cost of production of identical military items in the United States, claimed that the USSR was spending much more than the United States—up to 15 to 17 per cent of its GNP.

For the past year, however, the USSR has provided basic information about its military forces. In 1989 it was announced that the Soviet military force (not counting internal troops, border guards and railway troops) had 3,992,000 soldiers.

According to the official Soviet figures, at the beginning of 1989 the strategic forces of the Soviet Union comprised 2,484 strategic launchers: 1,398 ICBMs (760 of them with MIRVs); 924 SLBMs (440 with MIRVs); 162 heavy bombers (97 with ALCMs).

At the same time, the Soviet Union maintains and produces a large number of conventional weapons—in 1990 it has 8,207 combat aircraft in tactical aviation, 4,014 combat helicopters, 1,723 tactical missile launchers, 63,900 tanks, 76,520 APCs, 66,880 artillery guns, 260 general-purpose submarines, and 157 large surface combatants.[1]

Such huge military forces allowed the USSR to maintain parity with the United States and its allies in Western Europe and the Far East. The perception of a threat involving the so-called "encirclement" of the Soviet Union led to very heavy investments in defence. Today, many in the USSR believe that it was an over-reaction. At present there is a lively debate among the Soviet people about the scope and the structure of military forces needed for defensive sufficiency of the Soviet Union.

The burden of maintaining present military forces is rather heavy for the Soviet economy, although the Western estimates turned out to be high. According to the official Soviet figures, the military spending covered 8.5 per cent of

the GNP and 12.1 per cent of the national income of the USSR in 1989, and 7.5 per cent of the GNP and 11 per cent of the national income in 1990. The Soviet Government wants to reduce the share for defence in the national budget by 50 per cent by 1995.

Such huge expenditures on defence are a heavy burden for the Soviet economy. Table 1 proves that the Soviet Union is implementing its decision, announced by Mikhail Gorbachev in December 1988 at the United Nations, to cut its military expenditures by 14 per cent and the military production by 19.5 per cent. The 1990 defence budget is 6,318 million roubles lower than the 1989 budget, a reduction of 8.2 per cent. In 1991 it will be reduced to 67.3 billion roubles at current prices. The expenditures for procurement were reduced in 1990 by 1,557 million roubles or 4.8 per cent. Taking into account inflation, the real reductions will be even more drastic. For instance, the cost of aircraft, according to the Chief of Staff of the Air Force, Lieutenant General Pozdnyakov, increased 1.5 to 2 times in recent years.[2]

Table 1
Defence expenditures of the Soviet Union
(*Billions of roubles*)

Title	*1989*	*1990*
Military procurement	32.6	31.0
Research and development	15.3	13.2
Operation and maintenance of the military forces	20.2	19.4
Military construction	4.6	3.7
Military pensions	2.3	2.4
Other	2.3	1.3
TOTAL	77.7	71.0

Source: Krasnaya Zvezda, 1 February 1990.

The differences in geostrategic positions, traditions and military doctrines produced serious disparities in the

Soviet and American defence budgets. Of course, the United States spends much more on defence. According to the Secretary of Defense, Dick Cheney, the Pentagon outlays for fiscal year 1990 total 286.7 billion dollars while the budget authority will be even bigger—298.7 billion dollars.[3] But since the United States economy is much bigger, the expenditures of the Department of Defense make up only 5.2 per cent of the American GNP.[4]

The non-convertibility of the rouble still makes it difficult to compare Soviet and American defence expenditures. The dollar estimates of the CIA tend to give a gross exaggeration of the Soviet expenditures, because they do not take into account the low cost of labour and *matériel* resources in the USSR.

Table 2 gives a comparison of the main components of the Soviet and American defence expenditures in 1990.

Table 2
Structure of Soviet and United States defence expenditures
(*Percentage*)

Title	*United States*	*Soviet Union*
Military procurement	27.14	43.70
Research and development	12.83	18.60
Military construction	1.99	3.76
Housing	1.14	1.47
Operation and maintenance	29.19	17.65
Military personnel	26.77	9.57
Pensions	(7.07)	3.44

Sources: Dick Cheney, Secretary of Defense, Annual Report to the President and the Congress, 1990, p. 69; *Krasnaya Zvezda*, 1 February 1990.

As table 2 demonstrates, there are important differences in the allocation of the Soviet and American defence resources. The investment part takes almost two thirds (67 per cent) of the USSR military budget, while the United

States spends only 43 per cent of its budget for this purpose. On the other hand, supporting (current) expenditures take only 33 per cent of the Soviet, but 57 per cent of the American defence budget.

To some extent these differences can be explained by the fact that American military forces are professional, whereas the bulk of the Soviet military forces consists of conscripts who receive only a token salary. That is why the USSR spends much less for military personnel than the United States, although the Soviet Army is twice as large (3,993,000) as the American active military component (2,077,000 without civilian support staff and military reserves). In 1990 the USSR will spend only 5,765 million roubles for the salaries of its military personnel, 1,032 million roubles for the salaries of civilian personnel working for the Ministry of Defence, and 2,440 million for military pensions.

Changing Priorities

The political changes in the relations between the East and the West and the new thinking allow for a radical change in national priorities. Already in 1990 several important arms control agreements may lead to drastic reductions in strategic and conventional weapons. A Soviet-American agreement on strategic arms reductions of 50 per cent would probably lower the ceilings for launchers to 1,600 and for accountable warheads to 6,000. Even greater savings will come from the Vienna agreements on conventional arms. Additional savings may result from the Soviet and American reduction of troops to 195,000 troops in Central Europe.

The end of the cold war and the deep cuts in strategic and conventional weapons may eventually result in savings of many billions of roubles and dollars. It would seem that some of those savings could be assigned to the United Nations efforts to solve global probiems. If the greater political co-

operation between the USSR and the United States (and between East and West in general) is accompanied by a greater willingness to allocate a small portion of the savings for the United Nations peace-keeping operation, that may open a new era for global peace and international security.

Notes

1 *Izvestia*, 16 December 1989.
2 *Krasnaya Zvezda*, 22 February 1990.
3 Dick Cheney, Secretary of Defense, Annual Report to the President and the Congress, 1990, p. 10.
4 *Ibid.*, p. 71.

Political Change, Future Security Needs
and Military Expenditures

The Material and Non-Material Dimensions of Future Global Security Needs

Virginia Gamba-Stonehouse

Profound changes in political and military affairs in the world context are usually a result of violent conflict, and a new world order can often emerge as a consequence of major international confrontation. Most countries then assign great importance to their own security concerns and to maintaining stable international relations.

Security and defence have traditionally implied that a country has the ability to use—initially—armed coercion and—ultimately—direct military power to dissuade, neutralize or improve its relations with another State. A study of the changes in the use of armed coercion provides the backdrop for the evolution of strategic thought, ideas and concepts. There has been a change in the nature of military power over the years. The changes have been both material and non-material. Every time new technological developments have changed the basic elements of time, space and fire-power as used on the battlefield, the scope of action of armaments has also changed. New strategic doctrines have had to be enunciated to take account of the material changes.

By the same token, when there has been a change in the political context in which armaments were used, this has

Virginia Gamba-Stonehouse, an Argentine national, is a specialist in strategic studies. She is a member of the Pugwash Council.

also caused profound changes in the strategic concepts of nations. These political changes might apply to the establishment of a new world order (for example, as a result of global confrontation) or to the proscription and limitation of the use of military force (for example, by declaring wars of conquest illegal). Moreover, the relationship of the military as a body to the rest of society has also undergone changes, as can clearly be seen from a study of the evolution of the role of the military in contemporary politics. Thus, in some countries, the military itself has become a threat to the security of its own nation when it has intervened in internal politics and government.

Policies and Strategies

Military strategy, in its basic form, is nothing more than the practical application of existing military means to the achievement of a policy. Hence, strategy is about means, and policy is about ends and objectives. Likewise, strategy presupposes the existence of an opposing will. If this were not the case, then policies could be applied automatically and would not require a plan of action to put them into force.

Political change, therefore, often brings about changes in the security perceptions and needs of nations. As security is closely associated with the military, issues such as military expenditures, the influence of the military-industrial complex, civil-military relations, and the enunciation of strategic doctrines all change accordingly. But despite this action-reaction effect between changing policies and strategies, it is often difficult to foresee whether any major international change will lead to a more, rather than a less, secure world in general.

For these reasons, disarmament does not automatically do away with conflict. Nor does a policy inclined towards peace produce an absence of war. Conversely, neither does a policy and strategy of deterrence through the threat of the

use of force nor an arms race produce, ultimately, a stable and more secure world. The history of mankind bears ample testimony to this fact.

Underlying Causes of Change

Today, one such moment of history is unfolding before our eyes. Political and security needs have begun to change in the last five years. Surprisingly, these changes have not been the result of violent conflict. In the course of 1989 the world was amazed at the rapidity and scope of largely peaceful political changes. This time, fortunately, these changes seem to be opening an era of reduced rather than increased international tension.

For the first time in decades, East-West disarmament talks seem to be prospering and international co-operation is increasing. But have these changes come about because of a realization that peaceful co-operation is the road to follow? Or have they come about as a result of impotence and of the inability to continue with past policies?

This question is important, not only from a political viewpoint, but also when applied to military issues such as disarmament: Does disarmament occur because of a definite will to lower the tensions among nations? Or does it occur as a result of the sum of peripheral issues such as economic problems, inability to sustain an effort, or the need to divert power to other issues? To understand and assess the future global security needs, it is of crucial importance to differentiate between these two attitudes.

The East-West conflict has influenced the course of politics in the international arena for almost half a century. The ideological, economic and military competition between two camps that have been clearly opposed to each other since the end of the Second World War has marked not only the relationship between East and West but also the relationship between North and South that has been emerging since the

decolonization era ended in the 1950s and 1960s. In the East-West dimension, the arms race was the main factor. In the North-South dimension, economy and development have become the major issues.

In the second part of the 1980s three major international issues came to the forefront: political and social changes in the Soviet Union, serious economic problems in both East and West, and new perceptions of threat coming from the South, such as drug traffic, social disruption and developmental paralysis, not to mention international terrorism. Of these, the only threat perception that was shared by all parties concerned was that of the mounting economic problems impinging on future projections for the United States and also for the Eastern bloc, some countries of the Western European bloc and most developing countries.

Unlike the United States Administration, which proceeded to re-arm at the end of the 1970s and in the first half of the 1980s, the Soviet Union's changed leadership initiated a process of relaxing tension and made a positive move towards disarmament during the same period. Eventually, economic pressures, together with the new political spirit in the Soviet Union, led other countries of the Eastern bloc to undergo similar changes. The lessening of tension prevalent in the last part of the 1980s also influenced the masses of Eastern Europe to strive for radical changes in their societies. In an analysis of the timing of these changes, the role of the media should not be underestimated. In some cases, the timing induced by external influence (through the media for example) and by internal movements proved negative, as was the case in China in 1989. In other cases, the relaxation of border controls, together with a better knowledge of the options open to the people, led to gradual shifts and changes that gathered momentum towards the end of the year, as was demonstrated by events in the German Democratic Republic, Czechoslovakia and Romania. Spearheading the changes

since 1985, Hungary and Poland consolidated their gains and pressed the advantage. Today, Bulgaria, and Albania as well, and also a number of Soviet Republics are all undergoing fundamental changes in their structure.

In the process, the concept of "friend or foe" has begun to change in both the East and the West. Disarmament negotiations at all levels—nuclear, chemical and conventional—have gained new impetus. In some cases, over-confident countries in Western Europe have begun to introduce important demobilization policies without waiting for the outcome of specific conventional arms reduction negotiations.

In other cases, countries such as the United States have suddenly found that they can cut their military budgets in view of the relaxation of tension and thus concentrate on more important, immediate problems such as drugs (both traffic and abuse) and socio-economic domestic problems.

Thus, the old, overt military alliances and their capabilities have suddenly come under scrutiny and much has been done to reorganize their structures in keeping with different objectives. Self-defence rather than deterrence seems to be the rationale for the maintenance of military capabilities under NATO. Much more serious is the future of the Warsaw Treaty Organization, an issue that is no longer a military one but almost a purely political factor. The solution to this problem will therefore emerge as a result of political needs much more than of military realities.

East-West and North-South Reactions to the New International Climate

Meanwhile, what has happened to the two major world military Powers? What are their objectives and how will they restructure their military capabilities to suit the new situation? Paradoxically, the new international climate has not changed the underlying motivations or trends in the use of military power at this level.

Both the Soviet Union and the United States have revised their military policies in such a way as to give a higher priority to the control of their own domestic problems. This is clear in the Soviet Union's demobilization in Eastern Europe and Afghanistan and its concentration of forces for the internal control of political and social unrest in its own republics. By the same token, the United States has opened the decade with major acts of military intervention in Latin America under the justification of a "war on drugs". Doctrines of "low-intensity conflict" are now being applied by both of the super-Powers.

Coincidental with this approach by the super-Powers to the use of military power, other problems are beginning to generate trends that will affect long-term military projections for the world. In this sense, economic imperatives are dominant. Powers outside the orbit of the European Economic Community are worried about their economic future after 1992 and have begun to open new forms of co-operation with countries in potential growth areas such as the Pacific Basin.

The competition among countries outside Europe to influence Eastern Europe's economic development is likewise designed as a means to seek new markets and, more important, to obtain a foothold in European economic processes by entering through the back door.

For countries in the South, this search for markets has also encouraged a re-evaluation of their own potential resources. This means that with the uncertainty of economic markets for the future, many countries are consolidating their control over their own territories both on land and at sea so as to be in a position to prevent any future exploitation of such areas. Thus, these countries wish to defend their potential resources from all competition.

It is safe to assume that the possibilities for traditional East-West disarmament negotiations will be enhanced by the

political and economic developments described above. Unfortunately, these trends are not a response to a clear political will for co-operation rather than competition: they are the result of an inability to sustain the military and economic efforts of the last forty years.

In this sense, although we are experiencing major advances in disarmament talks, we are not experiencing the same level of progress in co-operative modes or in joint programmes for using the military and technological capabilities of nations to solve common problems. By the same token, the insecurity with regard to the future perceived by most third world countries is not conducive to the success of global disarmament efforts.

Today two issues in which international co-operation is not only necessary but unavoidable are protection of the environment and North-South interaction. Yet there is no clear political will to embark on mature scientific, economic and technological co-operation in these two areas. The result is that despite the new easing of East-West military tensions, there has been no parallel easing of tension in the dealings of industrialized countries with less developed ones or in the forming of a working relationship for the solution of global security threats such as those pertaining to the environment and the economic disintegration of many countries. If one adds to these problems the need for the transfer of technology, the issue becomes even more complex since the will to co-operate at the North-South level is not seen as a priority.

As regards disarmament, though this is continuing with regard to specific issues in East-West relations (particularly in Europe), the same does not apply to the issue of arms transfers to the third world, nuclear non-proliferation, or the eradication of violence world-wide. The industrialized nations have a very powerful military industrial complex that will be looking for new areas in which to prosper if and when their own countries stop major production of weapons

for their own regional security. Thus, issues such as conversion, arms transfer regulations, and codes of conduct for technological transfer from North to South are not experiencing the same level of interest as disarmament talks *per se*.

To make the future security needs of the world even more complex, the countries of the so-called South are becoming increasingly concerned at the prospect that industrialized countries may abandon their responsibility, encouragement and support in their regard. African countries, for example, are suffering not only from day-to-day violence but also from famine, the disintegration of their infrastructure, extensive environmental degradation, including desertification and deforestation, and finally, from the belief that their own economic and financial worries will enter into competition with the development of the newly democratic countries of Eastern Europe.

For the more developed countries such as those in Latin America there is also the fear that the markets they hope to gain will close on them and that the aid and understanding related to their own economic and financial problems will suffer *vis-à-vis* Eastern Europe. In some cases, in Central America for example, there is even mounting fear with regard to the possibility that the United States may use its military resources and the lack of competition from the East in order to engage in direct military interventions in their region.

No negotiations are under way for effective disarmament steps affecting North-South problems. Indeed, no negotiations are under way at the North-South level either for solving economic and financial problems or for joining forces for the protection of the environment.

More important, the last decade has witnessed considerable progress in the countries in the South. This has come about, again not so much because of a definite political will, as because of a lack of other options. Nevertheless, military governments in most third world countries suffered

major set-backs during the 1980s, and there has been a return to democracy on all continents. Precisely now, when these countries of the South are democratic and striving to consolidate their systems and create workable governmental infrastructures to provide economic alternatives, they feel they are ignored by the industrialized nations, either because the latter are more concerned with their own level of economic prosperity or because they are dazed by the rapidity of change in Eastern Europe and by the lack of competition world-wide between the capitalist and communist systems in the last few years. This last factor did make possible even the negotiated and peaceful solution of political problems such as those of Namibia and Afghanistan, and the negotiations under way in Cambodia but, paradoxically, it has done nothing to enable fragile democracies to consolidate their systems and help their societies towards development.

Uncertainty with regard to future options, fear of enforced isolation and mounting economic problems are all affecting third world nations today. If we analyse this in terms of disarmament, it follows that countries are not secure enough to embark on comprehensive disarmament processes at this time. The insecurity with regard to their future relationship with the rest of the world, and the mounting internal problems they face, such as drug traffic and power sharing, not to mention the defence of future natural resources, will not permit any major advance in a comprehensive disarmament policy affecting all countries. Conversely, if there is to be a dialogue between North and South on such issues, confidence should be built up first so as to allow for much more dramatic disarmament decisions.

Perhaps the real problem behind the current North-South, East-West relationships is the need to find common interests and needs. Not much effort has been devoted to this end and yet, perhaps, never before in recent history have there been so many common areas and problems between

North and South as there are today. In fact, even the definition of developed and under-developed countries should change, as can be seen by comparing some third world countries—such as the Latin American and some African nations—and the emerging nations in Central and Eastern Europe.

Facing the Global Economic Crisis

We must first understand that the world is facing a global economic crisis and therefore no one country can solve the economic problems of any other. Nor can any country solve its own economic problems alone. For this reason, both so-called developed and underdeveloped nations face the same kind of underlying economic problem. What then can differentiate nations today from the developmental point of view? This difference is increasingly marked by a nation's ability to organize itself internally in order to survive and to sustain development. This capacity depends not only on resources but on governmental infrastructure, consolidation of democratic systems and the efficient use of the institutions in a State: efficient governmental and non-governmental organizations as well as efficient civil-military relations.

Since the old democratic systems are no longer economic Powers as such with unlimited capabilities, it follows that the support they can provide for development should be more in technical assistance than in financial aid. Recent democracies of both South and North need to understand this and apply their own organizational and strategic planning. They need to cement inter-agency communications and an efficient civil service and bureaucracies (devoid of corruption and cost-efficient). They need to rebuild confidence among the different sectors of society, and they need to have non-governmental organizations and also efficient communications between these and the government, as well as between the civilian and military elements of society.

Technical assistance with a view to consolidating systems is the one thing that "developed" countries of the North could offer at cost. Had this been understood and provided when Latin American nations and other third world countries progressed into democracy in the decade of the 1980s, then the industrialized countries of the North would today have had the experience needed to help guide the same processes in contemporary Eastern Europe.

Thus an underdeveloped nation is defined today as one where there is no consolidation of governmental systems, where democratic patterns of behaviour are fragile, where inadequate economic infrastructures exist, and where there are no confidence indices between the different sectors of society. In such a society, it is not possible to obtain co-operation to sustain economic changes or to move forward in the country's recovery. Under this definition of underdevelopment, the differences between a range of countries in Latin America and Eastern Europe fade away.

Disarmament: The Cause or Result of Peace?

Disarmament can be the cause or the result of peace, but there can be peace only when competition is limited and co-operation pursued. And the first step towards co-operation is the identification of common problems. We have common problems between North and South and East and West: environment, nuclear proliferation, consolidation of nation-State structures, and economic crises.

Clearly, disarmament should help liberate nations to deal with these pressing problems but this could happen only as part of an umbrella negotiation in which co-operation among all parties is manifest and where confidence in such co-operation is boosted. If this does not occur soon, then the lack of identification of common problems will tend to separate rather than unite countries and regions and a resumed arms race will be the result.

The lessening of international East-West tension promotes disarmament processes. This is certainly the case in the European context, and—by its effect—it also helps towards the reduction of national military levels in the case of global Powers such as the USSR and the United States of America. By reducing the level of armaments in Europe, the Eastern European countries will find an easing of their economic problems even if only to the extent that the crippling effect of the arms race will be lessened so that resources can more readily be reallocated to development and financial recovery. For Western Europe likewise, a respite in the arms race can help concentrate efforts in the economic and social integration processes that are under way. Both the United States and the Soviet Union can only benefit by having their commitments to the defence of Europe reduced, leaving them free to concentrate their efforts on their own domestic situation and on efforts to set examples that can influence trends in other regions of the world.

Both Eastern and Western Europe can find a positive alternative to the arms race without lessening their security for the future. In Western Europe this is possible because the countries involved have organized societies that had begun integration processes many decades ago, thus sharing in their own regional defence and making a bid for a concerted economic future. The high degree of organization and of co-operation evidenced in these nations also helps maintain order within their societies, which in turn provides stability. By reducing the international military tension in the region, the countries can apply their energy to the consolidation of trans-border co-operation and integration. This co-operation is beginning to extend to Eastern Europe and the ingrained stability of the Western European political and military scenario provides a suitable backdrop against which Eastern European countries can initiate their processes of nation-building. In a very important way, these countries benefit

by having Western European countries as their neighbours since this offers a stable international context, which assures them support and lessens the probability of instability that all newly emerging nations face during the early stages of nation-building. Threats are therefore reduced, stability is enhanced, and the reduction in military expenditure can readily be applied to development. The strength of the countries surrounding them permits containment of any spill-over effects that may be brought about by the first convulsions of freedom.

It would, however, be a grave mistake to associate the reduction of tension and the success of disarmament policies in Europe with the future arms policies and security concerns of the developing world. Most developing nations have been pushed for years to the acquisition of considerable military power. Many developed countries were partly responsible for this buildup, not only in that they set the wrong examples, associating military preparedness and over-insurance with national security, but also because the international influence they exerted often tended towards the maintenance of special military aid and assistance, not only in training but also in military procurement in the South. Thus, it is often possible to see that by selling weapons to specific developing countries, the producer nations assured some level of co-operation and influence between that nation and themselves. If this mode of action is seen through the lens of the ideological disputes originating in the cold-war era, it is not difficult to perceive that, at times, powerful countries aided and supported military-oriented governments as long as these provided some sort of containment to the expansion of the policies of the competitor Power. This support was obtained through military assistance, training, weapons transfers, and military co-operation treaties, which emphasized the bilateral level of the co-operation and discouraged the multinational efforts at collective defence.

The amount of military expenditures in developing countries rose to a level that was not commensurate with the level of their development or of their economic effort. Most of the time, the imbalance thus produced in these nations led to the taking over of the government by the military themselves and to subsequent repression of the populations. Once in the spiral of an arms race, developing countries found that it was very difficult to think about security without thinking of constant rearmament and, to this end, constant realignments with one Power or another. The network which emerged as a result of the arms trade was further complicated by the vested interests of powerful lobbies of the military-industrial complexes of developed nations.

The reduction in the East-West arms race, together with the deflation of the value of nuclear weapons, has generated greater concentration on the production of conventional armament. As the military-industrial complexes in developed nations have grown at a frenzied pace in the last fifteen years, any attempt to curtail the production levels can be seen as a threat to this industry; thus it is not difficult to imagine that most producers will attempt to interest developing nations in acquiring their excess product. The black market in weapons sales will in all probability increase at the same pace as developed nations disarm among themselves.

While these trends do exist, it is equally important to try to determine whether or not developing nations are more or less prone to continue sustaining their military expenditures today. It can be argued that the reduction in super-Power competition at the East-West level has produced a more stable and secure environment for the whole world and that this will, in itself, encourage developing nations to use their resources towards socio-economic development rather than military procurement. This reasoning is eminently logical but does not answer the material and non-material needs and problems of developing countries.

It is necessary for us to consider that developing countries today demonstrate a lack of trading partners, a lack of effective regional integration mechanisms, and a lack of institutionalized co-operation among similar countries. More important, the world economic crisis of the last decade has hit these countries with full force as industrialized countries have raised the levels of interest on their loans and developed much more protectionist policies than before. The ensuing instability at the national level bred dissatisfaction and social unrest, which in its turn led at best to broad democratization processes and at worst to an upsurge of parallel economies for narrow marginalized sectors of the society. Whatever the effect, many nations lost part of the internal and centralized control of their affairs. With the collapse of central authority and/or the lack of economic options open to their societies, many illegal groupings began to form, such as drug-traffickers, common bandits and guerrilla movements of no precise ideological stance. The governments, many of which had returned to democracy in the last ten years or so, found it difficult to guarantee the security of the people or even to manage the levels of corruption prevalent in their own bureaucracies. Since dictators and the military had often been seen in these nations as the cause of their problems and had therefore been removed after much struggle, these governments are reluctant to use their military apparatus for the achievement of law and order in their societies. In the hope of restoring security within the nation, they often feel compelled to increase the police apparatus of the State.

If we take these problems into account, it is easy to assume that the international reduction of East-West tension will not necessarily lead to greater individual security for developing nations. Their economies in disarray and the possibilities of controlling domestic violence reduced, most of these countries do not have the benefit of being part of a regional community with strong security and integration

mechanisms that will help them contain their problems. For years, these countries strove to maintain good economic and military relations with one or the other of the super-Powers on the bilateral level. Therefore, if the super-Powers are seen as isolating themselves from this pattern as a result of lessening competition between themselves, it follows that many developed nations will conclude that their defence is up to themselves alone. Thus, an arms race is much more likely to ensue than before, if only for the control of the nation-State itself.

If we also take into account the fact that most developing countries have obtained a considerable military force as a result of years of building it up, the temptation to continue maintaining their military levels is strong. None of these countries can afford to disarm to a great extent. Despite the fact that such disarmament might bring about economic respite, the uncertainty of the international economic and political scenario, added to the increase in internal instability, will counsel against this alternative. It would be an impossible situation for a country to disarm and then discover that it needed to re-arm in order to face its own security problems. Many countries lack the economic means to reproduce in future the level of military might they now possess. Should there be alternative umbrellas for co-operation and security, then this could provide enough confidence for countries to consider disarmament in a more systematic and organized manner without reducing their own security for the future—but no such mechanism exists today. Thus a reduction of military expenditure and the curtailing of an arms race in the developing world could come about only if there existed a stable regional background to the national instabilities or if control and security could be achieved in co-operation and not in isolation.

The present changes in the political climate of the world, and particularly of Europe, will generate new military

needs and objectives. As stated above, strategic doctrines concerning the use of military power undergo changes when there are changes in the political context (the non-material element) and when technological advances render old capabilities obsolete (the material element).

As we have seen, some of these non-material changes will result in real cuts in military expenditures, certainly in those countries that benefit directly from reduced East-West tensions. The arms race of the last fifty years has been fuelled mostly by the static relatio ship between certain States and by the rapid changes in technological advances in the field of weapons. Today the context has changed but the rate of technological change has not.

The countries that are suffering most from the growing technological gap are those of the South, which are also the ones that do not immediately perceive a change in their favour in the new international political context. Thus, it is logical to assume that at both the material and the non-material levels, the South feels threatened by the international environment of today. A growing North-South divide might fuel an arms race rather than have the opposite effect, and military expenditures in the South might increase in the near future as a result, not only of perceptions of increased isolation between North and South, but also of renewed impetus for the arms trade between the military-industrial complex of the North and the countries of the South.

The only way in which disarmament could bring prosperity both to the North and to the South and benefit from the existing East-West situation would be for a new dialogue to open up between North and South, a dialogue that would help identify common problems and interests, both material and non-material.

Future Security Needs

The future security needs of the world will probably be due to two types of threats: global and regional. Global threats include the environmental challenge and the solution of the international economic crises. Regional threats include the need on the part of developing countries to consolidate their institutions and generate order, to control and eventually eradicate drug-related violence, and to keep their territories from suffering foreign military intervention or being used as military bases.

There is an opportunity today to demonstrate the commonality of the interests and needs of nations in both the North and the South, and this opportunity does not necessarily begin with economic assistance but with technical assistance for the achievement of organizational planning and the consolidation of governmental institutions. Not only might such co-operation benefit countries of the North, such as those of Eastern Europe, but it might be of use to many countries in the South as well. Divisions between different types of nations might then be diminished rather than become more marked, as is the case at present. Perhaps this could also offer the basis for an initial dialogue between North and South, a dialogue that can become in itself a confidence-building measure for more comprehensive negotiations in future.

A comprehensive global lowering of tension leading to disarmament can be achieved only if a new, equitable dialogue between developed and under-developed nations is institutionalized and if more effort is devoted to the creation of regional co-operation mechanisms. Perhaps the greatest challenge to international organizations today is to facilitate and implement such a dialogue.

Political Change, Future Security Needs
and Military Expenditures

Disarmament, Development and Military Expenditure

Saadet Deger and Somnath Sen

Introduction

The remarkable transformation that took place in international political relations in the course of 1989 has raised the hope that an end of the confrontation between the major Powers is now in sight. Since the end of the Second World War the two super-Powers and their allies have invested huge amounts of resources in the construction of military systems that have threatened the future of mankind. This situation may now be changing. The prospects for peace, at least in Europe, are now probably the best they have been in the last four decades.

Yet, old conflicts linger on, particularly among developing countries. Even though many regional problems are closer to solution, the possibility of the so-called "third-world war" still remains. But far more important, an economic crisis is threatening huge segments of the world's population and nascent democracies are finding their existence jeopardized by developmental failures. The debt crisis is not much closer to solution than it was a decade ago; growth, investment shares and welfare programmes are all

Saadet Deger and Somnath Sen are Visiting Research Fellows at the Stockholm International Peace Research Institute (SIPRI).

at risk. The 1980s have been aptly named the "lost decade" in so far as economic progress goes.

There is a close connection between peace and prosperity. The linkages between disarmament and development need to be stressed repeatedly. If the rewards of the current peace process are not shared equitably by the whole world, long-term peace will not emerge and new conflicts will countermand the present harmony.

Limitations and reductions of military expenditure are the most obvious measure by which the current arms-control régime can be evaluated. After the dizzy heights reached in world military spending by the late 1980s, its decline provides the best way of ensuring confidence-building and the releasing of resources for world development. The purpose of this article is to analyse the interconnections between disarmament and development and then to consider how cuts in military spending can be utilized to achieve prosperity through peace. The next section analyses empirically the scale of world military expenditure. In particular, it looks at the massive sums currently spent for European defence and deterrence. If this can be drastically reduced, as a consequence of the current peace process, then a better reallocation of international resources will be possible. Section III discusses the theoretical framework that links disarmament to development through an extended notion of security. Section IV suggests policy options for making this transfer of resources feasible and realizing the full potential of the disarmament dividend. The final section gives a brief conclusion.

Scale of World Military Expenditures

World military expenditure is now approaching $US 1,000 billion per year.[1] Most of this is spent by the industrial countries of the West and the East. Around 80 per cent of international defence spending can be attributed to the two

alliances, the North Atlantic Treaty Organization (NATO) and the Warsaw Treaty Organization (WTO). If other advanced countries, such as Japan and the neutrals in Europe, are taken into account, the share of defence spending accounted for by the industrial economies rises to approximately 85 per cent. In spite of the small share of the total in the third world, its aggregate military spending is not insignificant either. A preliminary estimate for 1989 puts total third world defence expenditure at around $US 150 billion. This is significantly less than the level of the mid-1980s, when it was of the order of $US 200 billion. However, given the economic crisis that most less-developed countries face today, military expenditure is unacceptably high.

The current European peace process raises hopes that significant conventional disarmament will take place in this region. It is therefore important to estimate the amount of military expenditure that is currently devoted to the European conflict between the major Powers. For many reasons, this is not an easy task. In particular, the allocation of the defence spending of the two super-Powers towards their European commitments is difficult to disentangle from the total. Some estimates are available for the United States, and similar proportions are probably applicable to the Soviet Union. On the basis of these figures it is possible to make rough calculations about the extent of defence spending, and concomitant military capability, currently utilized for Europe.

During the period 1974-1982 it has been claimed by the United States Department of Defense that about 15 per cent of annual United States military expenditure was used for the operating costs of bases in Europe.[2] However, total costs for the European and NATO commitment by the United States are much higher. The latter would include forces stationed on the United States mainland but available for redeployment in times of conflict. It would also include weapons acquisition, operations and support costs, research

and development (R&D) expenditure and so forth. This higher figure would amount to around 60 per cent of United States defence spending, according to information[3] presented in the mid-1980s. In current prices, the spending attributable to the European military security situation is some $US 180 billion.

It should be emphasized that even if all American forces are withdrawn from the European continent and de-activated, the saving in total cost may not be of the order of the $US 180 billion mentioned above.[4] However, in terms of new security doctrines, and of the disengagement of the United States and even the possible disintegration of NATO in the long term, this figure sets an upper limit to the expenditures that can potentially be released for other purposes. Considering that such a possible scenario for disarmament might lead to compensating commitments elsewhere (for example, bolstering the Navy to protect the mainland as the forward line of defence), the reduced net expenditure for the United States could be around 50 per cent of current total annual military expenditure. Accordingly, the United States would spend about $US 150 billion on Europe.

It is more difficult to make such estimates for the Soviet Union, simply because the data base is much weaker. However, if the similar share of 50 per cent is assumed as an indication of the Soviet burden for its spending on WTO and Eastern Europe, then a rough estimate can be made of costs here too. Thus, using SIPRI estimates of comparable prices and purchasing-power parities to convert roubles into dollars, Soviet expenditure for WTO commitments would be around $US 125 billion per year.

The SIPRI data base shows that European NATO spent around $US 155 billion in 1988. The neutral and non-aligned nations had defence spending of around $US 14 billion. Non-Soviet WTO countries' military expenditure is again difficult to compute in dollar terms since the exchange rates may not

reflect price differentials. Using purchasing-power parities, their defence spending is of the order of $US 23 billion for 1988.

The aggregate sum needed to maintain the conflictive situation in Europe which has existed for over four decades is a staggering $US 467 billion of military expenditure per year. This is approximately half of total world military spending (including the total strategic commitments of the two military super-Powers). We therefore arrive at the conclusion that the post-World War division of the two alliances on the European continent costs approximately 50 per cent of the total sum that the whole world spends on its military system.

Aggregate financial data can only provide a partial picture. The share mentioned above rises rapidly if we compare procurement spending or spending for R&D. Qualitative parameters, such as the number of scientists and engineers involved or the inputs required for the defence industrial base, imply a very much higher proportionate level of resources that are required to sustain the military framework. If national security needs can be redefined and arms control succeeds in moving towards partial disarmament, then the situation may be ripe for a qualitative transformation of the international defence economy. In these circumstances, the long-term beneficial impact will be much greater than any short-term resource transfer, great as the latter may be.

Even though in total the third world spends much less than developed countries (both East and West), its economic burden is much higher since it can ill afford to expend vast resources which compete directly with socio-economic needs. Currently, the developing countries taken together spend more than $US 150 billion for military purposes, which is about 16 per cent of the world total.[5] Over the decade of the 1980s, the military expenditure of the third world constituted 5 to 6 per cent of GDP, thus devoting around 20 per cent of central government expenditure[6] to national defence.

Arms importation, of both military hardware and technology, constitutes another major source of "unproductive" spending. Though not all of it is paid for, the opportunity costs in terms of debt accumulation, loss of alternative imports, forcing an arms race among neighbours and a general buildup of insecurity, have been significant. Over 60 per cent of all major conventional weapons traded are sold to the third world.[7] The proportion rises to around 80 per cent when all weapons are taken into account.[8] Almost all major sellers are advanced industrial societies, though there are a few significant exceptions (such as China). The value of major weapons imported by the third world is around $US 23 billion per year, while the value of all weapons (including support services) is approximately $US 40 billion per annum.

Though the arms trade is on the decline,[9] mainly for systemic reasons such as economic crises, its opportunity cost is still significant. One way of looking at this issue is to compare it with imports of machinery and transportation equipment. The latter contributes enormously to economic growth, and its absence often acts as a binding constraint to further development since domestically produced substitutes are not generally available. On the other hand, weapons imports are most often in direct competition with machinery and other manufactures that fall within a similar industrial trade classification category. It has been estimated that the purchase of major foreign weapons systems is equivalent to about 20 per cent of machine imports.[10] In a counterfactual scenario, if arms imports were replaced by imports of machinery, the latter would rise by 20 per cent. The effect of such a transfer on economic growth would be immeasurable.

After an appraisal of the magnitude and the scale of world, European and third world militarization, it is appropriate to analyse the links between disarmament and development within an expanded framework of security.

Disarmament, Security and Development

In its broadest sense, there are at least five ways in which security can be defined. These are: régime, national, regional, common and global. Each has three dimensions: military (strategic), political and economic. Taken together, a conceptual matrix of 15 elements can be defined. Numerous issues can now be categorized within this matrix. Table 1 presents an illustrative example.

Threats to régime security are an enduring problem in the third world. There are many reasons for this: the creation by colonialism of many States which did not properly define the status and boundaries of minority populations; a crisis of economic failures where the blame is imputed to the ruling régime; the absence of institutions which could cope with nation-building; the ambition and military power of élites who refused a participatory role to the majority of citizens.

National security problems are often motivated by similar causes. Opposition to the régime sometimes translates into questions regarding the legitimacy of the State itself. The process of democratization is hindered and national security is often used as an excuse to justify dictatorial governments. In addition, inter-State rivalry, often manifest in a crippling arms race, creates a major threat to national security. There are very few forums to which countries can turn to resolve such disputes. Sadly, even the United Nations has failed to live up to expectations. As has been claimed by Sir Brian Urquhart:

> "It is clear that the respect for the United Nations Charter and the Security Council, and the international authority that would be derived from that respect, had been seriously eroded for over 40 years by the perennial differences of the Council's permanent members."[11]

Bilateral agreements with major Powers seem to be one of the few effective guarantees that smaller States can have.

Table 1
Disarmament, security and development

Sphere type	*Military*	*Political*	*Economic*
Régime	Less use of military for internal security	Greater legitimacy	Government spending for socio-economic needs
National	Reduction of military threat	Democratization	Release of resources for additional consumption/ investments
Regional	Multilateral effort to end local arms race	Less interference in political system of neighbours	Economic (trade) cooperation
Common	Defensive defence	Confidence-building measures	Debt reduction and economic aid
Global	Lower hazards from military activities	More international coordination	Financing environmental protection

Yet, such a solution can only be transient since it does not go to the root of the initial problem.

As regards regional security, the anarchic nature of the international political system is forcing new power centres to evolve. With the use of more technologically advanced weapons and the proliferation of lethal arms, such as ballistic missiles, regional issues threaten even international stability.

This leads to the concept of common security which was envisaged by the Palme Commission, named after the late Swedish Prime Minister, Olof Palme.[12] Common security has three essential ingredients. First, the policies pursued by nation-States should be in the interest of all the States

concerned. Policies should be undertaken jointly, if possible, that is, by all interested parties together. Thirdly, activities which favour co-operation and reduce deception are preferable. As yet, in most areas of the world, these elements of common security are conspicuous by their absence.

Then, finally, there is global security in the form of environmental concerns. Many conflicts today, military, political and economic, arise from our inability to use the ecology and the global common properly. In additon, the military establishment itself is a serious polluter and the international arms race, particularly in the nuclear field, has created major environmental degradation. As the Chairman of SIPRI, Dr. Inga Thorsson, has claimed, the concepts of "globalism" and "commonalism" must now become an integral part of security relations.

Third world countries are faced with a rather tragic contradiction between the "security dilemma" and the "poverty trap".[13] They do have genuine security problems: history, colonialism, internal dissensions, racial and tribal divisions, and the weakness of domestic democratic institutions as well as intervention (both direct and indirect) by the major military Powers, are all important in exacerbating insecurity. These profound concerns often force governments to give primacy to defence spending over other forms of social and economic spending.[14] Yet, the final consequences may be unproductive, since developmental failures often lead to a much greater security problem than traditional concerns.

How do the concepts of disarmament and development fit in to our extended notion of security? The United Nations has for many years propagated the cause of disarmament and development. In 1987 the United Nations International Conference on the Relationship between Disarmament and Development was held to highlight these issues.[15] But in the light of super-Power confrontation the cause was not as successful as one would have wished it to be. However, with

the current changes in the political sphere, its time may have come, and it is worth while to go over the basic issues briefly.

Disarmament means a reduction in arms. In the last 40 years there have been almost no cases of actual disarmament in the sense that a nation had less arms compared to the past. For individual weapons systems, the INF Treaty, which eliminated intermediate-range missiles from Europe, is one of the few cases in which some success has been attained. The current negotiations on conventional forces in Europe (CFE) promises the elimination of many conventional arms. The non-proliferation Treaty (NPT) has succeeded in restricting the spread of nuclear weapons. In aggregate, however, the world military sector has always advanced whether its growth rate has been slow or fast. We will therefore use a weak measure of disarmament: the cases in which defence spending goes down, or procurement budgets decline or armed forces are reduced or industrial conversion takes place or arms imports fall or weapons systems are discarded without replacement or modernization. Further, military expenditure as a proportion of the gross national product is called the military (defence) burden and sometimes its reduction signals at least a (weak) measure of disarmament.

Development implies a process of social and economic change that increases per capita income and improves the quality of life of the greatest possible number of people in society. In additon to growth, development should provide the right to full employment, to egalitarian distribution of income, to the eradication of poverty, and to the provision of basic needs, as well as entitlement to a higher quality of life as measured by, say, literacy, infant mortality, life expectancy, health care and available nutrition.[16]

Disarmament and development are closely linked both for the third world and in the North-South context. The United Nations study of 1981 on this relationship,[17] produced by a group of governmental experts chaired by Ambassador

Inga Thorsson, makes explicit the interlinkages. But the continuing expansion of the military sector has always been justified as a guarantor of security. Yet, as table 1 clearly demonstrates, disarmament—if achieved—could alleviate many of these threats to security, be it régime, national, regional, common or global. The 15 examples shown in the table, though illustrative and hypothetical, clearly demonstrate the positive impact of arms control on enhanced security. Many of the examples also demonstrate how socio-economic development can be fostered and political institutions created when the pace of arms dynamics is reduced.

It is often thought that the link between disarmament and development applies only to the third world. It is true that in its starkest form the effects of undue militarization are often felt in the poorest societies of the world. Yet, the 1980s have increasingly shown that even the major Powers and advanced industrial societies are not immune from the debilitating effects of the arms race.

During the period 1980 to 1989 the United States spent around $US 2,500 on its defence.[18] It acquired and extended an awesome capability of military power, including space defence systems and a strategic nuclear triad sufficient to destroy any known opposing society many times over. Yet, during the same period, it became the largest foreign debtor in the world and accumulated equally awesome budget and trade deficits. Ex–Rear Admiral of the US Navy Gene La Rocque has aptly claimed:

> "America's deteriorating international trade position is more damaging to our security than any new Soviet weapons development. The enormous burden of the rising federal budget deficit threatens the lives and prosperity of our children. The American educational system needs a major new infusion of creative ideas and resources if we are to retain our world influence in the future."[19]

The Soviet Union has recently reversed a trend of twenty years and begun a new phase of military expenditure reductions and unilateral disarmament. Much of the impetus behind these arms control intiatives comes from economic factors. As President Gorbachev has stated, the issue now is to transform an "economy of armaments into an economy of disarmament". A programme of industrial conversion, where defence factories are utilized to produce machinery and consumer goods for the ailing civilian sectors, has been initiated to rejuvenate the economy.[20] Depending upon the estimates used, the Soviet Union has spent 9 to 12 per cent of its gross national product on the military sector.[21] This is a burden that no country, however strong economically, can afford. Even at the height of the Reagan arms buildup, the United States spent about 6 per cent of its gross domestic product (GDP) on the military. Owing to the relative strength of the two economies, the USSR spends a 50 to 100 per cent larger proportion of its economy than the United States to achieve approximate parity. The current trend is therefore to utilize the resources released by a lower force structure to help efforts for domestic development.

The limitation of military expenditure is the simplest, and often most effective, way of achieving lower levels of arms and greater ingredient in achieving common security, particularly among erstwhile belligerents. Finally, reductions in military spending release resources which can be utilized for developmental purposes. As emphasized earlier, many of the security problems of the third world countries arise immediately from developmental failures. The alleviation of poverty and malnutrition and the provision of basic entitlements are often the first steps towards greater security. The close link between disarmament, development and security should be clear.

Disarmament Dividend

The proportion of resources used for the world military sector is great indeed. From an historical perspective, the period after the Second World War developed into a long-term, continuing, almost self-perpetuating system. In spite of the fact that East-West confrontation has not erupted between the major Powers, all States involved in it have created a "semi-war economy." There seems to be little historical precedent for such preparedness for war during a period in which there was no actual war in Europe. The special situation of the United States is illustrative. During the period before the Second World War, 1930-1939, the United States spent around $US 11.5 billion (at 1990 dollar values) per year on military expenditures.[22] After 1950, annual defence spending was consistently *20 to 30 times more* than the amount in the pre-war decade. In 1990, only 13 days of military expenditure would consume exactly the same amount of real resources (after adjustments for inflation) as was spent over one year[23] during the period 1930-1939. Though no precise data are available for the Soviet Union, there is no reason to believe that the situation there was very different.

It is possible that international military security, specifically the avoidance of another war, required the massive expenditures needed to finance the "policeman role" that the super-Powers and their followers performed. However, as the situation is changing rapidly, and political developments emphasize the positive elements of the peace process rather than deterrence alone, it is time to think of other options. Reduction of military expenditure is the most obvious way of releasing the disarmament dividend for use in global development.

The Soviet Union has announced reductions in defence spending by 14.2 per cent during the years 1989-1990.[24] The United States has cut national defence expenditure outlays in real terms (after inflationary adjustments) by 6 per cent

between (fiscal years) 1987-1990. After the unprecedented rise in their military spending over the whole of the 1980s, the downturn must provide some welcome respite. The question now concerns the alternative uses to which these resources can be put. If at least some of these resources are not utilized for equitable international development, helping the third world to recover from the devastating effects of the debt crisis, protecting the environment and achieving security against disease, hunger, malnutrition and poverty, then the prospects for lasting peace are not good.

Official development assistance (ODA) is one of the more imaginative ways in which the third world can be helped to recover from its deprivation. Yet, its level and particularly its share in GNP is still quite low. The United Nations call for allocating 0.7 per cent of GNP to ODA is still far beyond the practice of most donor countries, though there are significant exceptions, such as the Nordic countries. In 1988 the richest Western economies gave, in aggregate, 0.36 per cent of their national product as foreign aid,[25] far less than the amount considered optimal by most analysts. Comparable data for the USSR and Eastern European countries are still quite controversial and are not reported here.

It is of considerable interest to compare levels of military expenditure and development aid and to see the relative magnitudes. This might also help identify the level of resource transfer that is feasible under defence spending limitation scenarios. Table 2 provides 1988 figures, in the first three columns, for ODA, military spending and the ratio of the two. These are given for the European Community as a major collective economic player, the United States and Japan, as well as for Sweden. The last-mentioned represents a small group of neutral countries which have maintained independent, strong defences, yet have been very generous with foreign aid.

It is clear that traditional security commitments, re-

Table 2
Military expenditure and ODA, 1988

	ODA	*Military expenditure*	*ODA/Milex*	*Rise in ODA due to 10% cut in military exp.*
	(Millions of US dollars)		*(Percentage)*	
European Community . .	21,611	151,860	14.2	70.3
United States	10,141	294,901	3.4	290.8
Japan	9,134	28,521	32.0	31.2
Sweden	1,529	4,442	34.4	29.1

Source: Author's calculations and SIPRI data base.

flected in military expenditures, are of much greater concern to the European Community and the United States than to such countries as Japan and Sweden. While for the United States the value of ODA is 3.4 per cent of the value of military expenditure, for Sweden the ratio rises to over 34 per cent.[26] The third column reflects the allocation that countries decide to make to international military security and to non-military security.

More important is the fourth column in table 2. This shows how much ODA would rise if a 10 per cent reduction in government military expenditure were transferred to official aid. For Japan and Sweden the rise would be modest though helpful. For the United States the increase would be very high indeed. In effect, a modest 10 per cent cut in defence entails an almost 300 per cent (threefold) rise in ODA. For Western European countries, also, the increase in international resource transfers could be significant if modest disarmament proposals were implemented and military expenditure reductions given priority.

An alternate set of calculations would involve hypothesized resource transfer from conflict resolution in Europe. If all the countries involved in the region, including the super-Powers, decided to reduce defence spending in response to recent changes in the security environment, the

savings would be enormous. More specifically, consider the imputed cost of the conflict in the European region. This was estimated above as $US 467 billion per year in 1988. In comparison, total ODA from all countries taken together is about $55.9 billion for the same year. A moderate 10 per cent cut from defence spending for Europe transferred as foreign aid would raise world ODA by around 84 per cent. In other words, total official development assistance could almost double if only a 10 per cent limitation on the defence spending currently devoted to the post-war European division and conflict were transferred as ODA.

The possibility for substantial increases in the disarmament dividend is present in the current world system. What is lacking is the political will. In the absence of political action there is no mechanism by which such transfers can take place in the short run. The non-military threats to security are compelling enough. At the same time, war as a means of solving foreign policy problems is no longer an option in Europe. The time has therefore come to address the relationships between development and disarmament in a practical way and to identify the specific rewards of the current peace process.

Conclusion

In 1989 it was claimed:[27]

> "Suddenly we are in a hurry. We must hurry through the demographic transformation if we are to achieve some reasonable relationship between numbers of people using resources and the capacity of those resources to support us. We must hurry to make fuller use of our best agricultural areas if we are to stop the misuse of low-potential areas which should be utilized for forests and grazing or left alone altogether. We must hurry to apply known technology and to provide 10 billion people a decent living, without destroying our

fragile biosphere. Implicitly, this means we must hurry to achieve improved health, which itself involves moderation in the number of births. We must hurry to bring education to all of our populations because this is essential to our other objectives. We must hurry to create the conditions for job creation and income growth because, without efficient production and adequate income, the developmental process cannot be sustained."

Population pressures, conflict over natural resources, low agricultural productivity, migration of refugees, atmospheric pollution, lack of basic rights such as health, education and minimum income: all these are as much of a security threat as weapons and military force. Sometimes they may even be related. The rate at which we could have moved towards the goals of sustainable world development, and security in the wider sense of the term, has been slow for four decades because military security commitments have been of overriding concern. This must now be challenged. The central concern of the 1990s is threefold: to reverse the arms race; to protect the environment; and to promote equitable development. Military expenditure reductions, and resource utilization to tackle non-military threats to security, constitute the first step on the long road towards that desired goal.

Notes

1 Calculation of aggregate world (or regional) military expenditure is problematic for two main reasons. First, there are considerable data problems and for some countries it is difficult to get reliable information. Secondly, conversion into a common currency, here the dollar, has its own difficulty since exchange rates can fluctuate wildly or else be unresponsive to price differentials. These figures should therefore be treated as orders of magnitude rather than precise statistics. They do however reflect trends and can give a reasonable picture of the financial cost of the international military organization.

2 *Department of Defense Authorization for Appropriations for Fiscal*

Year 1982, Hearings before the Committee on Armed Services, United States Senate, 97th Congress (United States Government Printing Office, 1981).

3 This figure is reported in A. C. Maroni, "US perspective on the economic costs and benefits of the withdrawal of US troops and facilities from Europe", in J. M. O. Sharp, ed. (forthcoming), quoting the unclassified introduction to *United States Expenditure in Support of NATO* (Washington, D.C., United States Department of Defense, 1987).

4 The pitfalls of utilizing such information are lucidly summarized in A. Maroni (note 3).

5 Information derived from the SIPRI data base.

6 See *World Military Expenditures and Arms Transfers 1988* (Washington, D.C., United States Arms Control and Disarmament Agency, 1989).

7 See S. Deger, "Recent Patterns of Arms Trade and Regional Conflict", paper prepared for the *39th Pugwash Conference on Science and World Affairs*, Cambridge, Mass., USA, July 1989.

8 The United States Arms Control and Disarmament Agency (see note 6) gives data for all weapons while the SIPRI arms trade register provides information on major conventional weapons.

9 For an analysis of recent trends in the arms trade, see S. Deger, "Regional Conflict and Recent Trends in the International Arms Trade", in C. Jeshurun, ed., *Arms and Defence in Southeast Asia* (Singapore, Institute of Southeast Asian Studies, 1989).

10 See note 9 for calculations.

11 B. Urquhart, "The United Nations and the Iran-Iraq War", *SIPRI Yearbook 1988: World Armament and Disarmament* (Stockholm International Peace Research Institute, Oxford, Oxford University Press, 1988).

12 *Common Security: A Programme for Disarmament:* The Report of the Independent Commission on Disarmament and Security Issues (London, Pan Books, 1982).

13 R. L. Rothstein, "National security, domestic resource constraints and élite choices in the Third World", in S. Deger and R. West (eds.), *Defence, Security and Development* (London, Frances Pinter Publishers, 1987).

14 S. Deger, "Welfare and Security: Government preference functions in less developed countries": paper presented at the UNICEF-ICDC Conference on *Social Security in the 1980s: Policy Options in the Next Decade* (Florence, 1990).

15 See S. Deger, "The United Nations International Conference on the Relationship between Disarmament and Development", in *SIPRI Yearbook 1988: World Armaments and Disarmament* (SIPRI, Oxford, Oxford University Press, 1988).

16 A. Sen, "Development: Which way now?", *Economic Journal*, vol. 93, pp.745-762.

17 *Study on the Relationship between Disarmament and Development*: report by a committee of experts chaired by Ambassador Inga Thorsson (United Nations document A/36/356, 1981).

18 United States defence spending is calculated from *United States Budget in Brief 1990* (Washington, D.C., U.S. Government Printing Office, 1989).

19 The quotation is taken from "The U.S. Military After the Cold War", *The Defense Monitor*, vol. XVIII, No. 8, Washington, D.C. (Center for Defense Information).

20 L. Vid, "Guns into butter, Soviet style", *Bulletin of the Atomic Scientists*, Jan.-Feb. 1990, pp. 17-19.

21 The lower estimate is closer to official Soviet sources for 1989; the higher estimate is based on SIPRI data for 1988; see S. Deger, "World Military Expenditure", in *SIPRI Yearbook 1990: World Armaments and Disarmament* (SIPRI, Oxford, Oxford University Press, 1990).

22 Kaufmann, W. W., "A plan to cut military spending in half", *The Bulletin of Atomic Scientists*, vol. 46, No. 2 (March 1990).

23 Author's calculations from expenditure data on United States national defence outlays.

24 President M. Gorbachev's speech to the USSR Congress of the People's Deputies on 30 May 1989.

25 See *Development Cooperation in the 1990s* (Paris, OECD, December 1989).

26 For further details of the ratio of ODA to military expenditure, see S. Sen, "Debt, financial flows and international security", *SIPRI Yearbook 1990: World Armaments and Disarmament* (SIPRI, Oxford, Oxford University Press, 1990).

27 "Looking towards the next century", report by J. C. Wheeler, Chairman of the Development Assistance Committee, Organization for Economic Cooperation and Development, in *Development Cooperation in the 1990s* (Paris, OECD, December 1989).

Towards an Agreement on Reducing Conventional Forces in Europe

Lynn M. Hansen

Some time this year, barring some exceptional and unforeseen event, the 16 members of the North Atlantic Alliance and the seven States which signed the Warsaw Treaty will conclude the most sweeping arms reduction agreement ever attempted. After decades of cold war, political animosity and military confrontation, statesmen have revolutionized their thinking about the future of Europe and the futility of war as a means for pursuing political objectives.

Although it is impossible to say just when this process of change began, there are several identifiable milestones along the way.

The NATO Alliance adopted the Harmel Report in 1967,[1] even as it was in the process of adopting a new strategy—flexible response. Indeed, flexible response (which provided for the possibility of using nuclear weapons in defence of the integrity of the territory of NATO member States) may be interpreted as reflecting one element of the Harmel Report, namely, that NATO should be able to defend itself militarily. The second element, however, held out an olive branch to the Soviet Union and its Warsaw Pact allies. It declared a willingness to negotiate agreements which through their military and political significance could enhance security, stability and peace.

The Soviet invasion of Czechoslovakia to crush the

Lynn M. Hansen is Olin Professor at the United States Air Force Academy, Colorado.

Prague Spring in 1968 cast doubt upon the utility, even the credibility, of the second element of the Harmel Report. None the less, in the early 1970s most member States of the two alliances entered into preparatory negotiations to establish the terms of reference for the Vienna talks on reducing conventional armed forces in Europe, known in the West as the mutual and balanced force reduction (MBFR) negotiations. At the same time, the 33 States constituting Europe (all but Albania) as well as the United States and Canada were meeting in Helsinki to establish the rules and procedures for the Conference on Security and Co-operation in Europe (CSCE).

Ironically, no progress at all was made in the Vienna MBFR negotiations. The United States had entered into these negotiations as a means of achieving negotiated mutual withdrawals rather than the unilateral United States troop withdrawals then being advocated by Senator Mike Mansfield and other members of the United States Congress. For its part, the Warsaw Pact seemed to have little interest in achieving an agreement, being, as it was, in the midst of a major programme of modernizing its armed forces in Central and Eastern Europe. Despite their long duration without agreement, the MBFR talks also contributed to the making of an environment in which serious agreements could be reached. For nearly 15 years, the armed forces of the MBFR participants were the subject of discussions and analysis; the effect of this experience should not be undervalued.

The more politically oriented CSCE process did reach an agreement late in July 1975 when the Helsinki Final Act was signed. Initially greeted with much scepticism, the achievement of political agreement on a framework for addressing the entire spectrum of problems relating to security and co-operation in Europe was, certainly in retrospect, a turning-point in European history.

The framers of the Helsinki Final Act were wise

enough not to allow any one dimension of the political, security and economic structure to dominate the process. Thus each of its three major subject areas—security, economics/science, and humanitarian issues—forms part of an integral whole. With regard to security, the Final Act embraces a modest set of confidence-building measures, including a political obligation to notify major military manoeuvres and provisions for the voluntary invitation of observers to military exercises. The major portion of this section, however, spells out ten principles to guide relations between the 35 participating States. The seventh principle stipulated respect for human rights and fundamental freedoms, including freedom of thought, conscience, religion or belief. This alliance of human rights and security constitutes one of the two elements of genius in the Helsinki Final Act. The other is the concept of follow-up meetings at regular intervals to review the implementation of obligations as well as to consider further proposals. This concept gives life to the notion of process.

The integral nature of the CSCE process was tested in major follow-up meetings in Belgrade, Madrid and Vienna as well as in a series of smaller CSCE expert meetings that probed performance and expectations in each of the three major subject areas—labelled "baskets" in CSCE parlance.

As part of a balanced, comprehensive outcome at the Madrid follow-up meeting in 1983, agreement was finally reached on a mandate for a Conference on Confidence- and Security-building Measures and Disarmament in Europe. The Madrid meeting was a particularly stormy one. The Soviet Army had invaded Afghanistan in December 1979, a Soviet submarine was grounded on the rocks near a military installation in the Swedish archipelago in 1981, martial law was imposed in Poland, and Western insistence on detailing human rights abuses in plenary sessions and to the press made negotiations difficult. Moreover, the United States

Administration under President Reagan was viewed by many in Europe as unfriendly to progress in the area of arms control. None the less, experts continued to hammer out the details of an agreement in spite of the vexed political environment and the apparent irreconcilability of various positions.

At virtually the same time, the decision by the North Atlantic Alliance to modernize its nuclear capabilities in Europe by deploying Pershing II and ground-launched cruise missiles (GLCMs) began to be implemented. This was also a major event in laying the groundwork for arms control agreements in Europe. As much as anything, this demonstrated Western European resolve not to be intimidated by the wholesale deployment of Soviet SS-20 intermediate-range missiles aimed at targets in Western Europe. This deployment undoubtedly factored heavily in the development of "new thinking" among the Soviet leadership as it demonstrated the futile and precarious nature of arms buildups as a means of achieving political goals. This made agreements on new confidence- and security-building measures (CSBMs) and the elimination of INF missiles both more attractive and possible.

After a long period of political stagnation under the leadership of Leonid Brezhnev, a process of re-evaluation began under the new General Secretary Yuri Andropov. The necessarily innovative character of new thinking in Moscow, coupled with the ill health of the new leader, slowed the process considerably. None the less, it had already become clear that the Clausewitzian precept that war is the continuation of politics had become inoperative in the nuclear age. Irrespective of the desirability of preserving peace through the threat of nuclear annihilation, deterrence was a modern-day reality. The passing of Andropov's successor, Chernenko, from the scene brought Mikhail Gorbachev to power in the Soviet Union and unleashed those who believed in

political dialogue, arms control, and diplomatic agreement as the path to greater stability and thus greater security in Europe.

Contributing significantly to the evolution of new thinking was the growing realization of severe difficulties in the centrally planned economy of the Soviet Union. Measured against economic growth in the West, particularly Western Europe and Japan, it was abundantly clear that a fundamental change in approach was needed.

It was against this background that the Stockholm Conference, whose mandate had been decided in Madrid, convened. The deaths of both Andropov and Chernenko during the conference almost certainly resulted in some attenuation in the Soviet Government's attention to the question of confidence- and security-building measures. But the appearance of Mr. Gorbachev resulted in new decisiveness in the Soviet position and a demonstration of desire to reach agreement in Stockholm.

There are several reasons why agreement on the Stockholm Document was crucial to the probable achievement of an agreement in the Vienna CFE negotiations. Three are noteworthy. First, it represented the first step in a step-by-step process which facilitated overcoming the natural scepticism of military leaders in several countries, not the least in the Soviet Union, about the acceptability of agreements which pursued greater openness in military affairs. Secondly, the agreement embodied the first negotiated right to conduct on-site inspection of military forces in the field. And finally, the outcome at Stockholm demonstrated the possibility of reaching significant agreement in the area of military arms control in a multilateral forum of 35 sovereign and independent States. In this context, it also demonstrated the ability of the two largest military Powers to negotiate constructively in the interest of multilateral agreement.

It goes without saying that the INF agreement between

the United States and the Soviet Union was also a key in developing the arms control culture and environment which has contributed to the probability of success in Vienna. Several basic principles were established which will carry over into the CFE setting. Parity at lower levels, instituting the principle that the one who has most reduces most, was central to the INF agreement and will be to a CFE agreement as well. A detailed exchange of information validated through intense on-site inspection is likewise integral to both negotiations. And agreement that provisions for stringent verification, best exemplified in former President Reagan's dictum "trust, but verify", has become a dogma of contemporary arms control agreements.

The third CSCE follow-up meeting in Vienna, which ended early in 1989, was, like its predecessor in Madrid, an intense review of the implementation of previous commitments and consideration of new proposals. Significant progress was made in the field of human rights and humanitarian affairs. Two expert meetings on human rights were mandated, one in Copenhagen and one in Moscow. Agreement was also reached to hold several other expert meetings before the next CSCE follow-up in Helsinki in 1992. In the security area, it was agreed to continue negotiations on confidence- and security-building measures on the basis of the mandate agreed in Madrid.

At the same time as the Vienna follow-up meeting was under way, the 23 States belonging to NATO and the Warsaw Treaty Organization agreed on a mandate for negotiating conventional arms reductions in Europe. While these new negotiations were to be of an autonomous nature, it was agreed they would take place within the framework of the CSCE process. It was also agreed that the CFE negotiations would seek to reduce conventional forces in Europe; neither naval nor nuclear forces would be covered in the negotiations.

Why CFE?

For more than forty years following the Second World War, Europe was plagued with mistrust, suspicion, fear, political competition, military confrontation and potential instability. There is little to be served here by resurfacing all the history that contributed to those forty years. Suffice it to say that by the mid-1980s, Europe was stuffed with arms and armaments—the instruments of war. Yet, an objective consideration of all political, economic and military factors would have shown that war would have been a calamity for all of Europe, indeed for much of the world.

At least three times during those forty years, force of arms had been brought to bear in Europe against ordinary citizens who sought more individual freedom for themselves and their fellow countrymen. While none of these three occasions threatened to bring on another world war, each exacerbated already existing suspicions and estrangements giving sustenance to the cold war.

The dividing line between Western and Eastern Europe appeared to become more indelible in the context of military modernization and buildup. With full understanding of the offensive strategy of Warsaw Pact forces, NATO sought to enhance its capability for forward defence. Anti-tank weaponry on the Western side evoked anti-anti-tank measures, such as reactive armour, on the Eastern side. The ability to strike deep was enhanced on both sides with more sophisticated weaponry.

The two Germanys became most illustrative of the situation. In the German Democratic Republic, as many as twenty Soviet manoeuvre divisions plus six East German divisions and approximately 30 main operating air bases populated an area about the size of the American state of Ohio. In the slightly larger Federal Republic of Germany, the 500,000-man *Bundeswehr* was supplemented by four United States divisions and two armoured combat regiments. In ad-

dition, the British Army on the Rhine as well as Dutch and Belgian forces maintained a sizeable presence and commitment to the defence of NATO in the northern part of the Federal Republic of Germany. And a contingent of French forces maintained a permanent presence in south-western Germany. Allied air capability was organized into two tactical air forces. Seldom, if ever, have so many forces occupied so little real estate in peacetime.

Neither the MBFR negotiations nor the CSCE process was configured in such a way as to promote negotiated solutions to what was an all-European dilemma. At the same time, both made their unique contributions. MBFR covered only a limited area in Central Europe; it did not extend to Soviet territory in Europe or include all the States in Western Europe which are politically and militarily critical to European security. CSCE is a political process which entails only political obligation; this is not the format in which one negotiates legally binding treaties. Moreover, CSCE is an association of 35 sovereign and independent States, with the full participation of the neutral and non-aligned States of Europe. The requirement for drastic reductions of military potentials is, in the first instance, the business and obligation of those who possess them—the States belonging to the two alliances.

The concept of reducing military potentials in Europe could not be restricted to the two Germanys or to Central Europe as was the case in MBFR. Therefore, the mandate agreed on in Vienna stipulated that the reductions area would cover all of Europe, including its island States and territories. All 23 States belonging to the two alliances actively participate in the negotiations, with all their relevant equipment in the zone of application constituting part of the agreed totals. CFE will conclude with a treaty requiring ratification by the parliamentary councils of the States parties and become part of the codex of international law.

Initial Approaches

The traditional military security problem in Europe has been the invasion of one State by another. It therefore made great sense when the two sides agreed that two major objectives of the negotiations were to eliminate the capability for surprise attack and to eliminate the capability for conducting a large-scale sustained offensive. Both these objectives relate to the capability to invade, to seize and to hold territory.

In modern warfare, it is the main battle tank that forms the backbone of the ground offensive, that is, the ability to seize and hold territory. Tanks are supplemented by armoured fighting vehicles, armored personnel carriers, and artillery. For these reasons, the initial Western proposal at the CFE talks focused on these armaments and equipment. Later, it was agreed to include combat aircraft and combat helicopters as well as United States and Soviet troops stationed outside national borders.

At the beginning of the CFE process in Europe as a whole (without regard to alliances) there were more than 73,000 main battle tanks, 26,000 armoured infantry fighting vehicles, 106,000 armored personnel carriers and 57,000 artillery pieces.[2] Much of this equipment is antiquated; but there is much of it also that represents the latest in military technology. More important, what is immediately clear is that there is far more than befits a situation of 40 years of peace in Europe.

In formulating their position for the CFE negotiations, the 16 countries of the Western alliance reasoned that the total number of tanks, armoured troop carriers and artillery pieces in Europe could be cut by approximately 50 per cent. This accords with the first Western objective in the CFE talks: the establishment of a secure and stable balance of conventional forces at lower levels. Therefore, the *first element* of the Western proposal was that after reductions are

completed, there should be no more than 40,000 tanks, 56,000 armoured troop carriers (armoured infantry fighting vehicles and armoured personnel carriers) and 33,000 artillery pieces.

The seven members of the Warsaw Treaty Organization quickly signalled their willingness to adopt this approach as a basis for the negotiations. Indeed, they also voiced a willingness to accept the proposed limits on tanks and armoured troop-carriers; the final limits on artillery were to be established after both sides had agreed on definitions for artillery.

In December 1988, at the forty-third session of the United Nations General Assembly, General Secretary Gorbachev announced unilateral reductions in the Soviet armed forces which included a reduction of 240,000 troops and 10,000 tanks in Europe—5,300 of which were to be taken from Eastern Europe. In the early stages of the MBFR talks, the West had proposed the withdrawal of a Soviet tank army from the MBFR reductions area. The unilateral reductions announced by Mr. Gorbachev exceeded those proposed in that most ambitious MBFR proposal. NATO welcomed the Soviet initiatives, but noted that much more was required since the Warsaw Pact would still retain more than a 2.4-to-1 advantage in tanks, armoured troop-carriers and artillery pieces.

The *second element* of the Western proposal was founded on the principle that no single country in Europe should be able to dominate the continent by force of arms, or by the threat of the use of force. Thus, a sufficiency rule was presented which proposed that no State be allowed to possess more than 30 per cent of the total numbers of equipment remaining in Europe after reductions to proposed ceilings were completed. For example, of the 40,000 tanks allowed in Europe, no State could possess more than 30 per cent, or 12,000. The same principle applied for armoured troop-carriers and artillery.

Warsaw Treaty States also agreed to work on the basis of the sufficiency rule, although in all cases they suggested higher percentages for the sufficiency rule—for the three categories, between 32 and 35 per cent.

Since the desired outcome in Europe also related to the freedom and independence of individual States and enhanced stability in the region, the *third element* of the Western approach suggested that no State should be allowed to station more than 3,200 tanks, 6,000 armoured troop-carriers or 1,700 artillery pieces outside its borders on the territory of another State in Europe.

The reaction of the Warsaw Treaty States to this element of the Western proposal was also essentially positive, although they initially suggested higher figures in all three categories.

A *fourth element* of the Western approach was to establish parity between the two groups of States, that is, between the North Atlantic Alliance and the Warsaw Treaty Organization. For example, this meant that the seven members of WTO could possess, after all reductions were made, 20,000 tanks, and the 16 members of NATO would likewise possess 20,000 tanks.

The principle of parity between the two groups of States in Europe was also accepted by States of the Eastern alliance.

The division of Europe into a system of sub-zones was the *fifth element* of the Western approach. The objective of this system of zones was to ensure that there could be no subregional concentration of force which would be threatening or intimidating. The Eastern approach also contained sub-zones, although designed differently than those suggested by NATO members. In principle, then, both groups agreed on the use of sub-zones.

Initially, the most glaring difference in approach between the two groups of States was Warsaw Pact insistence

that reductions also be taken in troops, "tactical strike aircraft", and combat helicopters. For its part, the Western Alliance had not included these categories in its initial proposal because of difficulties in definitions and verification. Fifteen years of experience with the data disputes in the Vienna MBFR talks had convinced many that troops were not a verifiable entity. The mobility and speed of aircraft coupled with the diversity of mission and role made aircraft a complex issue for negotiation among the 23 States. Similarly, the diversity and use of helicopters in both military and civilian endeavour (in many cases the same helicopter model used in civilian enterprise is also used for military combat) would make negotiations excessively complicated.

At the initiative of President Bush in May 1989, the Western Alliance expanded its proposal to include reductions to approximately 15 per cent below current NATO levels in both aircraft and helicopters. This expanded proposal included all land-based combat aircraft (the Eastern proposal had limited reductions to a single category of "tactical strike aircraft"). With regard to helicopters, all attack and assault helicopters were to be included. President Bush also proposed a 20 per cent cut in combat manpower in United States stationed forces and a ceiling on United States and Soviet ground and air force troops stationed outside national borders in Europe at approximately 275,000 each. Withdrawn soldiers and airmen on both sides would be demobilized under this proposal. An additional element of the new initiative prompted by President Bush was an acceleration of the timetable for reaching an agreement in CFE. He suggested that such an agreement could be reached within a year's time and implemented in an additional two to three years.

Towards Agreement

As the CFE negotiations have progressed in the Austrian capital, consensus has begun to form around the main

elements of the initial Western proposal as explained above. Of course, there have been modifications as experts have delved into the detail involved in reaching agreed definitions on the equipment to be reduced and destroyed. The tank category, for example, has become more comprehensive to include light tanks as well as main battle tanks and to take into consideration the possibility of future wheeled tanks. Instead of using armoured troop-carriers as a category, consideration is being given to an overall category of armoured combat vehicles with sub-categories of armoured infantry fighting vehicles, armoured personnel carriers, and heavily armed combat vehicles (tracked or wheeled vehicles which are not tanks and do not carry troops but have a large-calibre main gun).

The two sides are close to agreement on the use of designated permanent storage sites in which treaty-limited equipment not in active units, but counted as part of overall ceilings, can be stored. Such sites would be subject to on-site monitoring. Stabilizing measures are also being negotiated which would restrict the size and frequency of large military exercises, limit the use of armoured vehicle launched bridges, and regulate the manner in which stored equipment is withdrawn from storage, used and returned.

The most difficult issue remains aircraft reductions. The Soviet Union seeks exemptions from reductions for different categories of aircraft. In Moscow's view, land-based naval aircraft, 1,500 air defence aircraft and 1,500 combat-capable trainers should be exempt from agreed ceilings. Such exemptions, in the Western view, are unacceptable and would even require additional aircraft on the Western side to preserve the principle of parity. As noted earlier, the wide range of helicopter types and usage also makes agreement on helicopter reductions problematic.

In February 1990, President Bush proposed more significant cuts in United States and Soviet troops stationed

outside national borders in Europe. Instead of overall ceilings of 275,000, as had been proposed in May 1989, President Bush suggested that each side reduce to 195,000 the troops stationed in the Central European Zone,[3] with the United States being allowed an overall total of 225,000 troops stationed in Europe. At the Ottawa ministerial meeting, the Soviet Union accepted this proposal with the stipulation that there be an absolute ceiling of 30,000 imposed on United States troops stationed in Europe outside the Central zone.

Although details remain to be worked out, both sides agree that an extensive exchange of information must set the stage for reductions as well as the verification of compliance with obligations undertaken.

Both sides have proposed rigorous verification measures, which include on-site inspection, aerial inspection, and non-interference with national technical means of verification. Nevertheless, the complexities of obtaining agreement from 23 sovereign, independent States to the details of on-site inspection remains a daunting task. For example, determining the number of on-site inspections any one State must receive is an intricate exercise, which must take into consideration the number of sites on its territory, the number of treaty-limited items, the size of the territory and other factors. This will not be easy. The number of inspections individual States and groups of States are allowed to conduct is similarly complicated, as are the rights of individual inspection teams at the sites to be inspected. The size of the protocol relating to inspection may well exceed that of the basic treaty text, as was the case in the INF Treaty. None the less, there is every reason to expect that a thorough and effective set of verification measures will emerge from the negotiations.

The speed of political transition in Europe has caused some to question the continued usefulness of the Vienna CFE negotiations. As non-Soviet State signatories to the Warsaw Treaty assert their independence and install freely elected

democratic governments, it is frequently argued that this political revolution will itself result in the withdrawal of foreign troops from their territories. This may be true, but that is not the issue. What is at stake is effecting an orderly and permanent transition from a divided to an integrated Europe. In CFE, this means creating the legal obligation to *withdraw and destroy* huge numbers of military equipment items. Again, tank numbers are useful for illustrative purposes: between 30,000 and 40,000 tanks will have to be destroyed by the Soviet Union and Warsaw Treaty States in order to reach the agreed ceiling of 20,000 tanks after reductions. Without a negotiated agreement which has the effect of international law, there would be no requirement for destroying equipment once reduced. Moreover, the negotiations are part of the process of creating a new European security system. The CFE outcome will be instrumental in determining the future directions of the NATO alliance as well as the continued existence of the Warsaw Pact. Setting limits on the future military potential of a unified Germany within the stability promised by a continuing European process also falls within the purview of the CFE negotiations. And finally, the CFE negotiations in tandem with the CSCE provides the necessary framework within which the political revolution in Europe can take place. Without such a framework and the support it offers, realizing the aspirations of individual States would be much more difficult.

The Western approach to the CFE negotiations has from the outset been dominated by the search for greater stability. Negotiated arms reductions, if properly carried out and verified, were considered part of the achievement of enhanced stability. Such reductions were not conceived of as an end in themselves. And, even in the face of such a dynamic political revolution, stability—not reductions—should remain the objective. Stability is neither an *a priori* condition nor a single moment in history. Rather, like history

itself, stability is a process. Agreement in the CFE negotiations will be part of that process.

Notes

1 NATO, *The Future Tasks of the Alliance:* report of the North Atlantic Council (annex to the Final Communiqué of the Ministerial Meeting, December 1967), *Basic Documents*, 3d ed. (NATO Information Service, 1981).

2 These figures, taken from the NATO publication *Conventional Forces in Europe: The Facts*, are all approximate. They are used here only to illustrate the overall quantity of military hardware in Europe, rather than as official negotiating data.

3 Belgium, Czech and Slovak Federal Republic, Denmark, Federal Republic of Germany, German Democratic Republic, Hungary, Luxembourg, Netherlands.

Towards the 1990 Non-Proliferation Treaty Review Conference

Preparations and Problems

David A. Fischer

The Changing Scene

Since the Third Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1985 there has been a transformation in East-West relations. The danger of a nuclear holocaust that has haunted the world since 1945 has receded and the nations of the two alliances are increasingly committed to a welcome disarmament race instead of the arms race of the early 1980s.

As nuclear technology spreads throughout the world the risk of proliferation has largely become a function of the political relations between hostile, rival or insecure States that have the technical ability to make nuclear weapons and have not renounced them. Most attention is therefore focused on the six so-called "threshold States", Argentina and Brazil, Israel and South Africa, India and Pakistan, which have neither acceded to the NPT nor brought into force a regional treaty banning nuclear weapons and which operate unsafeguarded plants that can make nuclear-weapon material.

The policies of these States may not be immediately affected by cut-backs in North Atlantic Treaty Organization (NATO) and Warsaw Pact forces. None the less, the changing political atmosphere in the North and improving pros-

David A. Fischer is Chairman of the Advisory Group on Non-Proliferation of the Centre for European Policy Studies.

pects for nuclear disarmament are, in time, likely to have far-reaching repercussions and will, one may hope, help further to marginalize nuclear weapons as the means of assuring national security.

Article VI of the NPT addresses not only nuclear but also general disarmament and implies an obligation on the part of all parties to negotiate reductions of conventional arms. More attention should be given to the vast expenditures on conventional armaments, especially by those States that can least afford such a waste of resources.

Regional Developments

Latin America

In recent years the risk of nuclear proliferation has declined sharply in Latin America. The main formal step taken since the last Review Conference was Argentina's ratification of the partial test ban Treaty in 1986. It was, however, the return or advent of democracy in both Argentina and Brazil that transformed their relations in the nuclear as well as in other fields.[1] Nuclear co-operation has replaced the rivalry of the 1960s and 1970s. Presidents Sarney and Alfonsín undertook numerous and effective confidence-building measures[2] and President Menem has made it clear that he will support them.[3]

As parties to the Vienna Convention on the Law of Treaties and as signatories of the Treaty of Tlatelolco, both countries consider themselves bound not to take any action contrary to the aims of the Treaty of Tlatelolco. This would rule out the development of nuclear weapons (which is also explicitly prohibited by a clause in the Constitution of Brazil).

It is unlikely that either Argentina or Brazil would formally renounce what they perceive to be their right to carry out nuclear explosions for peaceful purposes, but such

explosions are not technically, politically or economically attractive today. The financial position of both countries is also likely to impose constraints on such activities and on the resumption of nuclear competition which they would precipitate.

While the improved relations between the two countries are welcome on many counts, they do not seem to have improved the prospect that either of them will become a full party to the Treaty of Tlatelolco (let alone the NPT) in the near future. This is a pity; unless the nuclear détente is formalized, it will remain reversible.

Southern Africa

The De Klerk Government in South Africa "considers its current commitment to IAEA and the possibility of accession to the NPT in a serious manner".[4] The prospect that South Africa might accede to the Treaty prompted the General Conference of IAEA, in September 1989, to postpone for a third time the question of suspending South Africa's rights and privileges of membership in the Agency.

It remains to be seen what use the South African Government will make of this reprieve. It has been reported that President De Klerk has set up a committee, with himself as Chairman, to consider accession to the NPT and to take an early decision. It has also been reported that the small enrichment plant at Valindaba (the plant long suspected of having given South Africa the material needed to make nuclear weapons) is being closed down and that the larger commercial enrichment plant will be placed under IAEA safeguards.

Whatever the South African Government decides about the NPT, the Angolan/Namibian settlement, Pretoria's apparent reconciliation with Maputo, and the opening of dialogue with the African National Congress of South Africa (ANC) should demolish such arguments as may once have

been made that, on grounds of security, the nuclear option should be kept open.

South Asia

Even in South Asia recent improvements in the political climate may have reduced the immediate danger of a nuclear arms race, although the situation will remain grave until India and Pakistan enter into formal agreements to eliminate it. A wide variety of such formal measures are available, ranging from bilateral safeguards to accession to the NPT.[5]

There have been a number of encouraging developments during the past year. They include India's gesture of seconding Pakistan's re-entry into the Commonwealth which it had previously opposed and the signature by Benazir Bhutto and Rajiv Gandhi in January 1989 of the previously negotiated agreement not to attack the other State's nuclear plants and to provide precise information about the location of each plant. The Prime Minister of Pakistan also gave categorical assurances during her visit to Washington in June 1989 that ". . . we do not possess, nor do we intend to make a nuclear device . . . ".[6] The radical Hindu party (the Bharatiya Janata party), which supports the new Prime Minister, Vishwanath Pratap Singh, is said to be in favour of a nuclear arms programme[7] but according to a recent report Mrs. Bhutto has called upon both countries to avoid a nuclear arms race and Indian officials have welcomed her call.

In a wider context there have been several moves, some tentative and as yet unsuccessful, towards greater peace and stability in Asia: the end of the Gulf War, the Soviet withdrawal from Afghanistan, the Vietnamese withdrawal from Cambodia and the attempts to reach a peace settlement there, the improvement in Sino-Indian relations, and signs of an improvement in Sino-Soviet relations.

The Far East

On the other hand, a new risk of proliferation may have arisen in the Far East. The Democratic People's Republic of Korea acceded to the NPT on 12 December 1985. Under article III, paragraph 4, of the Treaty, the Democratic People's Republic of Korea was required to complete a standard safeguards agreement covering all nuclear material in the country within 18 months of the date of its accession to the Treaty (such agreements are already in force with more than 70 States). There have been a number of inconclusive meetings at which, it is understood, the representatives of the Democratic People's Republic proposed certain far-reaching and politically oriented modifications of the standard text.[8]

Four and a half years have now passed without the conclusion of the required agreement. Concern about this lengthy delay has been aggravated by reports that the Democratic People's Republic of Korea is building a large plutonium production reactor and a reprocessing plant, in other words, plants capable of making nuclear-weapon material.[9]

The Middle East

Although there has been no indisputable evidence of Israel's nuclear-weapon production, it is generally assumed that Israel now possesses a significant nuclear arsenal. Ambassador Gerard Smith has stated that the tolerance other States have shown for this long, steady and well-publicized process of nuclear proliferation shows a disturbing reluctance, particularly in the United States, to give effective and impartial support to the non-proliferation régime.[10]

Israel's neighbours appear to be considering non-nuclear means (missile and chemical-weapon capabilities) to counter the threat they perceive. This in itself may be destabilizing and not only in the Middle East. In December 1989 there was also a report that Iraq was endeavouring to acquire from a firm in the Federal Republic of Germany the

equipment and personnel to build and operate a gas-centrifuge enrichment plant, in other words, a plant that could produce nuclear-weapon material, but this has since been denied by the Ministry of Foreign Affairs in Bonn.[11]

Technical Capabilities

The technical ability of India, Pakistan, South Africa, Israel, and of Argentina and Brazil—to develop, manufacture and deliver nuclear weapons has steadily grown as new unsafeguarded sensitive nuclear plants have come into operation, as stocks of unsafeguarded fissile material have mounted, and as the nations concerned have acquired or themselves made short- and medium-range ballistic missiles.

On balance, however, and with the important exceptions noted, the political risks of proliferation in the regions concerned have diminished since the last Review Conference, and the political factor is paramount.

The Political Scene

There have been other encouraging developments since the Third Review Conference in 1985.

Nine States have acceded to the NPT. Besides the Democratic People's Republic of Korea, mentioned above, they are Spain, Saudi Arabia, Yemen, Bahrain, Kuwait, Qatar, Trinidad and Tobago, Colombia and Malawi. The accession of Spain brought all members of the Organisation for Economic Co-operation and Development (OECD) except France into the Treaty, and the accession of the four Arab States leaves only two non-NPT States in the Middle East, Israel and Oman.

The members of the European Communities are now more effectively co-ordinating their non-proliferation policies. The statement by France in support of the Treaty, on behalf of the European Community, at the IAEA Conference General in September 1989 marked a turning-point.

The Federal Republic of Germany has decided not to proceed with large-scale reprocessing of spent reactor fuel, in other words, with the production of separated plutonium. This probably means that only one non-nuclear-weapon State party to the NPT (Japan) will engage in large-scale commercial reprocessing. This should reduce the pressure on the IAEA safeguards and may make it easier for IAEA to develop the means of applying effective safeguards in a large reprocessing plant.

Western European controls on illegal nuclear exports have also been tightened (especially in the Federal Republic of Germany and Switzerland) but there is still room for improvement.

Early in 1989 Canada decided not to go ahead with earlier plans to acquire a fleet of nuclear-powered submarines. However, the lease of Soviet nuclear submarines to India points to the need for an agreed policy in this regard. Such projects involve the transfer or lease of large quantities of enriched uranium, in some cases enriched to weapon level, which IAEA does not have the authority to safeguard. One may question, in particular, the propriety of making such transfers to States not party to the non-proliferation Treaty.

The Review Conference

Setting the Stage for 1995

Of the present 142 parties to the NPT, 110 are developing countries. Their collective views on the way in which the NPT will serve their interests after 1995 are thus likely to determine whether and how long the NPT will be extended by the 1995 Conference. The Fourth Review Conference will influence their perceptions (as well as those of other crucial States). It is even more necessary than it was in 1985 that the 1990 review should strengthen the Treaty and lay the ground for a successful conference in 1995.

INF, the prospect of START, progress at the CFE negotiations and the numerous steps that the United States and USSR have taken to reduce the danger of accidental war and to help remove the sources of regional conflict may now enable them to contend more persuasively that they are meeting their commitments under article VI of the NPT. None the less actions already under way make it likely that the issue of nuclear testing and the negotiation of a comprehensive test ban treaty (CTBT) will dominate this year's Conference even more than they did its predecessor in 1985.

At the request of the required number of the parties to the partial test-ban Treaty (PTBT)[12] a conference is being convened with a view to converting that Treaty into a comprehensive test-ban treaty. A disagreement on the timing of the Conference has now been resolved, with a first Meeting of the Parties to take place in May-June and the Conference itself scheduled for January 1991, both in New York at United Nations Headquarters. As a result, a nuclear test ban is likely to be "back at the top of the agenda".[13]

As the United States and the United Kingdom have the right under the PTBT to veto any amendment to the Treaty and as there is no prospect that they will agree to its conversion into a comprehensive treaty as long as nuclear deterrence still remains central to NATO's policy, the outlook is that there will be an impasse. It is to be hoped that a formula can be found this year, as it was in 1985, that both sides can accept without, for the time being, modifying their fundamental positions.

The Middle East may again provide its share of divisive issues. American objections to proposals condemning Israel's 1981 attack on the Iraqi Tammuz reactor threatened the consensus that was eventually reached at the 1985 Review Conference. Co-operation between United States and Israeli scientists in defence research could raise contentious issues this year, particularly if there were allegations that such co-

operation extended to the nuclear field. Resolving such issues may not have been made easier by media reports in November 1989 of co-operation between Israel and South Africa in the development and testing of intermediate-range missiles and of South African nuclear supplies to Israel.

Other Middle Eastern issues that may arise are the place to be accorded to Palestine and the extent to which a ban on chemical weapons should be linked to progress in establishing a Middle East nuclear-weapon-free zone.

If South Africa does accede to the NPT before August 1990, its place in the Conference may also be a subject of discussion.

Concern about the nuclear programme of the Democratic People's Republic of Korea is another possible issue if the safeguards agreement with IAEA has not been concluded by the time the Conference opens.

Some delegations will raise the question of "negative" security guarantees, namely undertakings by the nuclear-weapon States that they will not launch or threaten nuclear attack against States that do not have nuclear weapons. The "guarantees" given in the past by several of the nuclear-weapon States were subject to far-reaching reservations and are exceedingly ambiguous.

In this connection, in March 1990, the Foreign Minister of Nigeria formally informed the Conference on Disarmament of Nigeria's proposal for an agreement on the prohibition of the use or threat of use of nuclear weapons against non-nuclear-weapon States parties to the Treaty on the Non-Proliferation of Nuclear Weapons (document CD/967). According to Nigeria, the proposal was complementary in nature to the NPT and did not in any way represent an amendment to the Treaty. It was underlined that the proposal was without prejudice to the work of the Conference on Disarmament on Negative Security Assurances. Nigeria expressed the hope that all parties to the NPT represented in

the Conference on Disarmament would lend their valuable support to this initiative when it came up for consideration both at the third session of the Preparatory Committee for the Fourth Review Conference of the Parties to the NPT and at the Review Conference itself.

As in 1985 the Conference is likely to reaffirm the importance and contribution of IAEA safeguards. It may also address the the question whether suppliers should require comprehensive safeguards (''full-scope safeguards'') as a condition of supplies to any non-nuclear-weapon State, and the proposal that IAEA safeguards should be extended to cover all civilian activities in nuclear-weapon States so as to prepare the ground for a cut-off in the production of fissile material for weapon purposes. Other safeguards issues might be the severe problems IAEA is beginning to experience in meeting its steadily increasing safeguards responsibilities with a ''zero-growth'' budget, possible adaptations of the IAEA system to enable it better to cope with this situation (and to take advantage of recent progress in verification approaches and techniques) and whether fissile material that may be withdrawn from nuclear missiles should be placed in IAEA custody.

It does not seem likely that article IV of the NPT (the right of access to peaceful nuclear technology and its transfer to the developing countries) will attract as much attention as at earlier review conferences. Only three of the developing countries parties to the NPT (Mexico, the Republic of Korea and Yugoslavia) are operating or building nuclear power plants today. Since the last Review Conference only three developing countries (the Republic of Korea and non-NPT India and Pakistan) have placed orders for nuclear power plants.

Until such time as developing countries again develop an interest in nuclear power they are likely to focus their attention on the non-power uses of nuclear energy and on

the technical co-operation programme of IAEA, which is their chief means of benefiting from these applications.

Finally, one should be ready for the unexpected; it was the unforeseen eruption of the Gulf War that at the last moment nearly wrecked the Third NPT Review Conference.

There are thus a considerably larger number of specific issues to cast shadows over the prospects for the 1990 review than there were in 1985. Nevertheless, 1990 will open under far more promising auspices than did the Third Review Conference in 1985. Then the prospect of a transformation of East-West relations was no more than a glimmer on the horizon: now it is a reality.

Notes

1 For a concise account of these developments, see John R. Redick, *Nuclear Restraint in Latin America* (Southampton SO9 5NH, Centre for International Policy Studies, University of Southampton, June 1988) (PPNN Occasional Paper Number One).

2 Leonard S. Spector, *The Undeclared Bomb* (Cambridge, Mass., Ballinger Publishing Company, 1988), p. 243. Chapter V provides a full account of Argentine/Brazil détente.

3 See "Programme for Promoting Nuclear Non-Proliferation", *Newsbrief*, October 1989, p. 3, second column, on President Menem's visit to Brazil in August 1989.

4 "SA is opposed to chemical warfare", *The Star International Weekly* (Johannesburg), 4 October 1989, p. 8.

5 Rodney W. Jones and Harald Mueller, "Preventing a Nuclear Sarajevo: A South Asian Strategy", *Arms Control Today*, January/February 1989, pp. 21-22. Jones and Mueller offer a wide register of confidence-building options.

6 Apparently some United States officials did not take these assurances at face value: Stephen Engelberg, "Pakistanis Pursuing Bomb Plan, U.S. Thinks", *International Herald Tribune*, 12 June 1989.

7 K. S. Jayaraman, "Singh shifts India towards nationalism", *Nature*, 14 December 1989, p. 723.

8 Ann MacLachlan, "US Prods IAEA about Safeguards for North Korean Nuclear Plants", *Nuclear Fuel*, 3 April 1989, p. 5; and "North Korea Begins Negotiations with IAEA: South Korea Interested in Coprocessing", *Nuclear Fuel*, 2 October 1989, pp. 1 and 11-12.

9 For example, John McBeth, Nayan Chanda and Shada Islam, "Pyongyang could be trying to build the bomb", *Far Eastern Economic Review*, 2 February 1989, p. 15; and Don Oberdorfer, "U.S. Spots Pyongyang Atom Plant", *International Herald Tribune*, 29/30 July 1989.

10 Gerard C. Smith and Helena Cobban, "A Blind Eye to Nuclear Proliferation", *Foreign Affairs* (Summer 1989), pp. 59-65 and 70.

11 "Iraq and the bomb", *MidEast Markets*, 11 December 1989, pp. 13-15; "Chinese 'helping' Iraqi nuclear bid", *The Times of London*, 12 December 1989, p. 6; and William Safire, "For an Open, Transparent Germany", *International Herald Tribune* (reprinted from *The New York Times*), 24-25 February 1990, p. 4.

12 Under article II, paragraph 1, of the partial test-ban Treaty (the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water), if an amendment to the Treaty is submitted by any party and if one third or more of the parties thereafter so request, the depositary Governments must convene a conference to consider the proposed amendment. Such an amendment has been formally proposed and more than one third of the parties have requested such a conference.

To take effect, the amendment must be approved by the majority of the votes of all the parties including the votes of the three "Original Parties", namely the USSR, the United Kingdom, and the United States (article II, paragraph 2). It is generally assumed that the United Kingdom and the United States will withhold their approval of the proposed amendment and that it will consequently fail to take effect.

13 Olafur Ragnar Grimsson, "Back at the Top of the Agenda: A Nuclear Test Ban", *Disarmament* (Summer 1989), pp. 117-125. This issue of *Disarmament* devotes several articles to this subject.

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Towards the 1990 Non-Proliferation
Treaty Review Conference

IAEA Safeguards—What They Are and What They Do

Jon Jennekens

Introduction

The safeguards system of the International Atomic Energy Agency (IAEA), in operation since the 1960s, is the central component of the world's commitment to control the spread of nuclear weapons.

Verification is what IAEA safeguards are all about. This verification function is intended only to show that nuclear materials in peaceful nuclear activities are not diverted to the production of nuclear explosive devices or other non-peaceful purposes. IAEA safeguards are not intended to prevent diversions but only to verify *ex post facto* that diversions have not occurred.

More explicitly, IAEA safeguards have a twofold objective: first, to verify in an independent, technically correct and comprehensive manner that States are complying with their safeguards undertakings, and thereby to provide meaningful evidence from which all States can draw conclusions regarding the assurance of non-diversion; and secondly, to assist individual States or groups of States to provide valid evidence, on a continuing basis, that they are complying with their safeguards undertakings.

Jon Jennekens is Deputy Director General of the International Atomic Energy Agency and Head of the Department of Safeguards.

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The safeguards obligations which States undertake are stipulated in formal agreements entered into with the IAEA. These agreements are based upon documents approved by the Agency's Board of Governors in accordance with its Statute.

Before explaining what IAEA safeguards are and what they do, it is appropriate to note that IAEA is not a regulatory organization. IAEA safeguards inspectors do not perform a policing role: their task, as indicated in their twofold objective, is rather one of verification.

The Safeguards Implementation Process

Determination of Technical Requirements

In an operational sense, the safeguards implementation process begins when a State submits design, operating and accounting information to the Agency concerning its nuclear facilities and its inventories of nuclear material. This information is studied and verified with a view to developing a set of inspection, accounting and reporting requirements for each nuclear facility. Inspection procedures are incorporated into what are called "subsidiary arrangements" and "facility attachments".

"Subsidiary arrangements" are documents which specify the general technical and administrative procedures to be followed by the State and the Agency in applying safeguards. "Facility attachments" specify the more detailed technical requirements which apply to a particular facility, including accountancy, containment and surveillance measures, the records and reports to be prepared, and the procedures to be followed in conducting regular inspections.

The negotiation of subsidiary arrangements and facility attachments is a very important process because its end result is an agreed statement of the technical requirements to be fulfilled by the State and the Agency in implementing the

provisions of the safeguards agreement. Unlike safeguards agreements, which are public documents, subsidiary arrangements and facility attachments are confidential since they contain information that may be of a proprietary nature or that may be otherwise commercially sensitive.

Inspections

The conduct of on-site inspections is central to the implementation of safeguards. An initial inspection is performed to verify that the information provided by the State or group of States accurately and adequately reflects the status of nuclear material and facilities. Thereafter, inspections follow a regular pattern although other inspections at short notice or of differing scope are also performed.

The first task of an inspector is to verify that the operating and accounting records at the facility are consistent with the information provided to the Agency by State authorities on a monthly basis in the form of official reports. The scope of any inspection could also include one or more of the following:

—Making independent measurements of nuclear material by means of non-destructive analysis (NDA) equipment;

—Taking samples of nuclear material for later analysis at the Agency's Seibersdorf Analytical Laboratory (or at one of the 18 "Network of Analytical Laboratories" established by member States);

—Installing or servicing containment and surveillance (C/S) devices such as seals or film cameras;

—Reviewing with State and nuclear facility representatives the results of past and current inspections with a view to resolving any questions which may have arisen.

Physical Inventory Verifications

In addition to the regular inspections described above, very important comprehensive physical inventories are car-

ried out. During these physical inventory verifications (PIVs) the actual amounts of nuclear material in a facility or in use or storage at some other location are physically verified to confirm the correctness and completeness of the information provided to the Agency by the State. In negotiating facility attachments the Agency and the State specify the procedures to be followed by the facility's operator in conducting his own physical inventories.

A physical inventory verification by the Agency must satisfy a number of criteria including:

1 Completion of the operator's physical inventory taken in accordance with agreed procedures;

2 Independent confirmation by Agency inspectors of the completeness and correctness of the operator's listing of inventory items by a combination of accountancy verification methods (e.g. item identification, weighing, volume determination, sampling and analysis, seal verification and statistical analysis);

3 Resolution of any discrepancies or anomalies;

4 Determination that any inventory differences are duly explained.

If significant differences cannot be explained even after exhaustive consultations the matter may be referred to the Board of Governors.

The IAEA Inspection Logsheet, Computerized Inspection Report and Inspection Documentation Package

Information obtained by inspectors during the conduct of routine or special inspections and physical inventory verifications is systematically recorded in a multi-page "inspection logsheet". This logsheet is the inspector's basic working document for recording the results of inspections, for use in pursuing follow-up actions upon the inspector's return to headquarters (e.g. for debriefing by supervisory

personnel, and initiating actions to resolve any discrepancy or anomaly not already settled during the course of the inspection) and for use in transferring all relevant information into the Agency's mainframe computer for production of the computerized inspection report (CIR). These documents and all of the documents prepared during pre-inspection activities, together with any additional documents obtained during the actual inspection, are assembled into what is known as the inspection documentation package (IDP). These packages may number only a dozen or so pages or may extend to a few hundred pages.

Evaluation of Safeguards Implementation Activities

Safeguards inspectors are supported by a number of specialists in the Agency's headquarters responsible for the computer processing of the mass of accounting data submitted by member States as well as of the data obtained during inspections. These specialists provide assistance in evaluating the quality and trends of data obtained, in correlating and analysing data obtained from different sources, and in evaluating the results of all safeguards activities in accordance with established performance criteria.

The evaluation of the effectiveness of safeguards begins with the identification of the ways and means by which nuclear material could theoretically be diverted from peaceful uses. These ways and means, or "diversion strategies" as they are called, are the basic input into the development of the safeguards procedures, equipment and instruments needed for each facility. The safeguards approach for each facility thus addresses the various "diversion strategies" which could be used, the detection and inspection goals to be applied, and the evaluation process to be followed.

Most of the design, accountancy and inspection data used in the evaluation process are obtained directly from the

computerized inspection reports (CIRs). The CIRs are structured in such a way that information relevant to a particular inspection activity, such as the examination and comparison of data in accounting records and reports or inventory verifications, is contained in individual sections or modules. Additional information of both a general and a specific nature is also incorporated into the Agency's computer for use in the evaluation process. Quality control checks are made by the computer to confirm the consistency, correctness and rationality of the data being evaluated.

The results of the evaluation are reported to the member States of the Agency in a document known as the safeguards implementation report (SIR) which is prepared annually and submitted to the Board of Governors at its regular meeting in June. The Board of Governors decided on the occasion of the presentation of the first SIR in June 1977 that the document should be restricted in distribution to the authorized representatives of member States.

Detection Goals and Inspection Goals

To permit adequate planning of inspections and meaningful evaluation of their results a number of performance criteria have been developed. These criteria and the numerical parameters from which they are derived are the technical basis for assessing the effectiveness of IAEA safeguards. In more common terms, they are the standards by which the reliability or credibility of IAEA safeguards can be judged.

The primary standards are called ''detection goals'' and these are specified in terms of: (*a*) the quantities of nuclear material of various types which are considered to be significant in the context of safeguards; (*b*) the timeliness of safeguards verification activities (i.e. the time interval required to complete the necessary inspection and other actions); and (*c*) the confidence with which conclusions can be reached about the results of inspections and other activities.

These primary standards are called: "significant quantities"; "detection times"; and "detection probabilities".

In applying the primary standards of safeguards performance to the planning of inspections for the many different types of facilities wherein safeguarded nuclear materials exist, the overall safeguards approach for each facility is developed in such a way as to include the specification of inspection goals. These inspection goals reflect the reality of the actual design and operating characteristics of each facility, the availability and capability of measurement equipment and systems, and the extent to which safeguards containment and surveillance equipment and systems have been installed in the facility.

The "inspection goals" provide the inspector with a clear understanding of the expected results of verification activities and thus the basis for the evaluation of the results of inspections. Typically, the "quantitative inspection goal" is to be able to confirm that the accountancy records at a facility are correct to within one "significant quantity" or less of nuclear material. Similarly, the "timeliness inspection goals" enable the inspector to determine the frequency with which seals should be verified or replaced, the frequency of physical inventory verifications, and the intervals within which surveillance equipment should be checked.

In addition, the requirements arising from the use of statistical methods applied in the analysis of accountancy data, measurement uncertainties and the correlation of information regarding domestic and international transfers of nuclear material are developed in parallel with the inspection goals.

Co-operation with States

The foregoing sections of this article are a summarized account of what the Agency does to implement the first of the two objectives indicated in the introduction. It is clear

that the Agency could not achieve this objective without the sustained co-operation and good will of the States. This is of course a two-way process, as is made clear by the second objective, which is to assist States in demonstrating that they are complying with their agreement obligations.

To render this assistance is not always an easy task. It may involve, for instance, the application of complex safeguards approaches and the use of sophisticated instruments and equipment. The Agency is neither staffed nor financed to such an extent that it can undertake the often considerable effort required to carry out the research and development (R&D) which is often needed.

This gap has for many years been obviated to a significant extent by co-operation between the Agency and some of its member States. A number of States, whether through formal agreements or less formally, have agreed to assist the Agency in the research and development work which the Agency must carry out but which it cannot undertake alone. Thus, the States are helping the Agency to help the States.

The guiding principles underlying the member State support programmes are:

—IAEA control in establishing its R&D programme and prioritization of support programme tasks;

—Focus on the product—what the Department of Safeguards needs, what the support programmes are expected to provide, and how the product will be utilized;

—Full consideration of the special capabilities, facilities and interests of different member State support programmes in the allocation of tasks;

—Separation of support programme administration from technical aspects;

—Technical involvement of the Department "end-users", essentially the safeguards inspectors, while centralizing and increasing the use of modern communication methods;

—Utilization of task results in the Department of Safeguards and feedback of experience to member States; and

—Interaction between support programmes.

It is certain that without past and continuing assistance from some of its member States the Agency would not be able to discharge its twofold function effectively.

Conclusion

As of 31 December 1989, there were 172 safeguards agreements in force between IAEA and 102 sovereign States. These numbers provide a clear indication of the breadth of IAEA safeguards coverage and therefore the importance of IAEA safeguards to the world community.

The extent of IAEA safeguards coverage is further indicated in the following table, which shows the different types and the number of nuclear facilities in which IAEA safeguards apply to the nuclear material being processed, used, produced, reprocessed or stored.

Nuclear installations to which IAEA safeguards apply

Installation category	*Number*
A. Power reactors	188
B. Research reactors and critical assemblies	172
C. Conversion plants	7
D. Fuel fabrication plants	41
E. Reprocessing plants	6
F. Enrichment plants	7
G. Separate storage facilities	41
H. Other facilities	49
I. Other locations	407
J. Non-nuclear installations	2
TOTAL	920

In 1989 more than 2,100 individual safeguards inspections were carried out, during which approximately 9,500 man-days of inspection were expended. Almost 1,200 samples of uranium and plutonium were taken in the course

of these inspections and more than 3,000 individual analyses were performed to determine the weight and the chemical and nuclear composition of the materials. In addition, almost 16,000 seals were applied to containers of nuclear material and to safeguards surveillance instruments and equipment.

Towards the 1990 Non-Proliferation
Treaty Review Conference

Some Regional Aspects of the Nuclear Non-Proliferation Régime[1]

Jorge Morelli Pando

Converging Positions of Argentina and Brazil on the Use of Nuclear Energy

The traditional rivalry between Argentina and Brazil is being superseded by a gradually growing understanding between them on the use of nuclear energy for peaceful purposes. When we look at the process initiated in the nuclear energy field in 1980 by two military Governments and subsequently continued and maintained by democratic Governments, there is no longer any need to feel apprehensive because earlier bilateral efforts failed. The most recent meeting between the heads of State of Argentina and Brazil (April 1988) shows how far their nuclear co-operation has come—so far that, according to some news reports, an isotope enrichment facility was opened at Iperó which, at some future point, will be used to supply fuel for nuclear submarine reactors.

This is not the place to describe in detail the scope and implications of Argentina's and Brazil's harmonious and partially shared nuclear development. What is important, beyond the political impact expected on their bilateral relations, is the foreseeable impact on the whole of Latin America

Jorge Morelli Pando is a Peruvian diplomat who has served as Vice Minister for Foreign Affairs and as Ambassador in Ecuador and Austria and at the United Nations.

and, more particularly, on the more cohesive South American region.

The solemn, politically and legally binding declarations repeatedly made by Argentina and Brazil either jointly or separately concerning the use of nuclear energy for exclusively peaceful purposes will, in theory, have major positive repercussions. The only two Latin American countries to have reached an advanced stage in this area of their development are guided by the same deep-seated concerns that prompted the vast majority of countries of the region to sign the Treaty of Tlatelolco. Moreover, although they, like Chile, are not full parties to that Treaty, their reaffirmation of the need to use nuclear energy peacefully obviously contributes to ensuring nuclear peace not only in South America, but also elsewhere in Latin America.

The reasons Argentina and Brazil, followed by Chile, are still not full parties to the Treaty will be taken up in greater detail later on in this article. However, it is useful to bear in mind at this point that in adopting their common position on the nuclear non-proliferation régime, Argentina and Brazil are not just exercising their unquestionable sovereign right to refuse, for the time being, to recognize the applicability of the Tlatelolco regional system and to oppose categorically the global system of the non-proliferation Treaty. Unlike the cases of India and Pakistan and of Israel and South Africa, Argentina and Brazil have absolutely no reason to incorporate nuclear weapons into their national defence systems. Given this characteristic of the relations between the States of the region—by contrast with the situation in other regions and with the endemic global confrontation between the major nuclear Powers, Argentina and Brazil appear to have opted for a policy of affirmation and prestige, with a view to gaining sufficient bargaining power for any future developments in the non-proliferation régime and in the peaceful use of nuclear energy.

Argentina and Brazil are regional Powers which wield influence beyond their own borders in their immediate geopolitical area. In 1982, that area, the South Atlantic, was the scene of a conflict which, in the opinion of those two countries, might have involved the transport and deployment of nuclear weapons. It was this that prompted the adoption, by the United Nations General Assembly, of a resolution declaring the South Atlantic a zone of peace and co-operation.

In the particular case of Argentina, there are internal reasons which make it difficult to ratify the Treaty of Tlatelolco, at least for the time being. However, in theory that does not mean that Argentina's position is more radical or that it is more opposed to the Treaty than are Brazil and Chile, which, while they have ratified it, have yet to avail themselves of the waiver that would enable them to become full parties thereto. In any event, Argentina's current position *vis-à-vis* the Treaty of Tlatelolco has been defined very clearly by Professor Héctor Gros Espiell,[2] who maintains that, while Argentina is not a party to the Treaty, it has expressly agreed that, as a signatory State, it cannot engage in acts contrary to the essential purpose and goals of the Treaty. Having said this, the important thing is to establish on what possible negotiating terms Argentina might ratify the Treaty and, together with Brazil and Chile, exercise the waiver referred to above.

There can be no question that if Argentina were to ratify the Treaty, it, together with Brazil and Chile, would be in a very special situation with regard to the entry into force of the Treaty, since its applicability would only be limited formally by the requirements of article 28; in other words, their compliance with the spirit and certain basic norms of the Treaty would in no way be limited.

Lastly, it is important to emphasize that the position taken by Argentina and Brazil and, secondarily, Chile, on the entry into force of the Treaty of Tlatelolco differs in

nature and significance from that taken in the parallel case of Cuba, which involves issues of great-Power strategy beyond the highly controversial question of the Guantánamo base.

Relationship between the Non-Proliferation Treaty and the Treaty of Tlatelolco

In order to define the relationship between the non-proliferation Treaty and the Treaty of Tlatelolco, we must, as Ambassador Julio C. Carasales has said, make a full study of article VII of the non-proliferation Treaty, which to some extent reflects resolution 2028 (XX) of the United Nations General Assembly. The actual text of article VII should leave no doubt as to the legitimacy of regional treaties.

However, Ambassador Carasales rightly fears that the article has been and continues to be misinterpreted as subordinating the Treaty of Tlatelolco to the non-proliferation Treaty, in much the same way as Article 52 of the United Nations Charter subordinates regional arrangements to the Charter itself. He goes on to add that the two Treaties, while similar in aim, are based on different criteria and principles. For example, article 18 of the Treaty of Tlatelolco expressly authorizes contracting parties to conduct nuclear explosions for peaceful purposes. This approach is fundamentally different from that of the non-proliferation Treaty, which subjects explosions of nuclear weapons and other nuclear explosive devices to one and the same régime.

Furthermore, and notwithstanding the provisions of article V of the non-proliferation Treaty concerning nuclear explosions for peaceful purposes, it is worth mentioning that article V refers to the potential benefits from any peaceful applications of nuclear explosions, which can be carried out only by nuclear-weapon States. It seems unnecessary to point out that the meaning of article 18 of the Treaty of Tlatelolco is different and more significant, in that it concerns an area where there are no nuclear-weapon Powers.

A forced interpretation of the provisions of the non-proliferation Treaty and the Treaty of Tlatelolco has thus been placed at the service of certain national interests, as in the case of the interpretative declarations by the United States and the United Kingdom regarding the Protocols to the Treaty of Tlatelolco. Those declarations state that the articles of the Treaty do not permit explosions for peaceful purposes unless and until advances in technology have made possible the development of devices for such explosions which are not capable of being used for weapons purposes.

With regard to safeguards and, more specifically, those applied in the context of IAEA, it is quite true that countries which are full parties to the Treaty of Tlatelolco and also parties to the non-proliferation Treaty have no problem whatsoever with the model safeguards agreement drawn up by IAEA. What is open to question is whether certain countries which are signatories to the Treaty of Tlatelolco and members of IAEA must act, in the matter of safeguards, as if they were also parties to the non-proliferation Treaty.

In this connection, Carasales has recalled regional and other special situations which have arisen within IAEA, such as the decision by the EURATOM (European Atomic Energy Community) countries and Japan to conclude safeguards agreements with IAEA before ratifying the non-proliferation Treaty.

That inherently complex and controversial situation prompted the General Secretary of OPANAL to say, at the thirtieth session of the OPANAL General Conference, that Argentina's desire for a safeguards agreement designed according to the letter and spirit of the Treaty of Tlatelolco was valid and would of course mark a new stage in the history of IAEA safeguards. OPANAL was sure that IAEA would co-operate in bringing about such an agreement.

Argentina's is not an isolated case. In the matter of safeguards, Brazil's position coincides fully with the one

described above. Moreover, the two countries have, through their gradual *rapprochement*, demonstrated their willingness to adopt a system of reciprocal verification which is obviously at the core of any safeguards system. In other words, this would be a bilateral system of safeguards—which could presumably be extended to other countries in the area—different from those of IAEA and in keeping with the spirit and purposes of the Treaty of Tlatelolco.

At this point, two important issues must be clarified. First, there is the option, on which Argentina has yet to take a decision, of ratifying the Treaty of Tlatelolco and then, subsequently, along with Brazil and Chile, of exercising the waiver that would enable it to apply the Treaty fully. The second option is to clarify the pending application of certain provisions of the Treaty of Tlatelolco concerning safeguards.

With regard to this second issue, it must be recalled that article 13 of the Treaty of Tlatelolco, which ensures a safeguards régime different from that of the non-proliferation Treaty, requires more precisely stipulated rules of application in keeping, in particular, with articles 16 and 18, inasmuch as they refer to reports of unauthorized explosions and to explosions for peaceful purposes. In any event, it may still be too early to make a statement as categorical as that of the General Secretary of OPANAL, quoted above.

We conclude from the foregoing that there are no grounds for arguing *a priori* that the substance of the Treaty of Tlatelolco is subordinate to and limited by the non-proliferation Treaty. What is more, if we are to be pragmatic and bear in mind the need to promote the full incorporation of Argentina and Brazil into the regional system, it is pertinent to quote Ambassador Carasales's view that the policy of converting the Treaty of Tlatelolco into a regional version of the non-proliferation Treaty would not be conducive to ensuring full adherence to the former Treaty.

In short, while the Treaty of Tlatelolco is not an end

in itself, given the global nature of nuclear problems, and while its future is therefore inconceivable without an adequate operating relationship with the non-proliferation Treaty, it must also be constantly borne in mind that, for all its limitations, the Treaty of Tlatelolco is the best practical example of nuclear non-proliferation, both because of the length of time it has been in effect and because of the peaceable nature of its area of application. The future of the non-proliferation Treaty, however, given the asymmetry of its provisions on the obligations and duties of nuclear- and non-nuclear-weapon States parties and the failure to implement those provisions properly, will largely depend on the review conference process, at the end of which, in 1995, the Treaty will either continue in force or else lapse—an alternative fraught with risks for the future of mankind.

To sum up, it would be advisable to proceed with caution in the search for possible ways of establishing a harmonious relationship between these two important instruments. The persistence of diametrically opposed arguments in favour of, on the one hand, total autonomy for the Treaty of Tlatelolco and, on the other hand, its *a priori* subordination to the non-proliferation Treaty is not conducive to lucid, practical deliberations which would facilitate the incorporation of Argentina and Brazil into the regional system and increase the latter Treaty's validity. This is an issue which the 1990 Review Conference will have to take up, on the understanding that it will have to consider all issues pending at both the global and the regional level.

Similarities and Differences between the Tlatelolco and Rarotonga Treaties *vis-à-vis* the Provisions of the Non-Proliferation Treaty

There is no need to dwell at length on one aspect of the relationship between the Treaties of Tlatelolco and of

Rarotonga—one that has been very clear ever since the latter of the two instruments entered into force: the importance of the establishment of a denuclearized zone in the South Pacific which is essentially similar to the régime established by the Treaty of Tlatelolco. Both zones have a large population and are geographically contiguous. They form part of a process of military denuclearization that began over 20 years ago with Tlatelolco and has been adjusted to keep abreast of global developments in the intervening period and to allow for certain differences between the South Pacific, on the one hand, and Latin America and its surrounding maritime areas, on the other.

One feature specific to the Rarotonga Treaty is the understandable influence of global multilateral instruments signed after the Treaty of Tlatelolco, such as the non-proliferation Treaty, the sea-bed Treaty and the United Nations Convention on the Law of the Sea, which, while it has yet to enter into force, has had an obvious positive impact on the development of the international law of treaties.

Two features which definitely distinguish the Treaty of Rarotonga from the Treaty of Tlatelolco are its provisions on the dumping of nuclear wastes and an additional protocol on nuclear tests, open to the nuclear Powers, which makes no distinction between explosions of nuclear weapons and other explosions for peaceful purposes. While the first of these innovations is self-explanatory, the second requires some comment.

On first analysis, the Treaty of Rarotonga would appear to represent significant progress over the Treaty of Tlatelolco in that it prohibits all kinds of nuclear explosions, thereby adhering implicitly to the spirit and the letter of the non-proliferation Treaty, whose safeguards system it adopts. In fact, it goes even further than the non-proliferation Treaty, article V of which refers to the potential benefits of any peaceful applications of nuclear explosions (those which the

Treaty obviously considers valid) conducted exclusively by the three nuclear-weapon States parties to that instrument.

Such an assessment would be somewhat simplistic if we did not contrast it with other features of the Treaty of Rarotonga. For instance, there can be no question that Protocols 1 and 2 of the Treaty of Rarotonga impose less stringent obligations on the major nuclear Powers than those imposed by the two Additional Protocols of the Treaty of Tlatelolco. This may be because of the demands which the ANZUS (Australia-New Zealand-United States) Treaty places on its parties in the South Pacific, which are greater than those imposed by the Inter-American Treaty of Reciprocal Assistance in the Latin American region. It is also very important to differentiate Latin America, a land mass with essentially complementary maritime areas, from the south-west Pacific region, whose land mass, Australia included, is far smaller than the vast maritime area affected by the Treaty of Rarotonga. What we have here, then, are strategic factors and legal factors, the latter linked to the above-mentioned Convention on the Law of the Sea.

The attitude of the nuclear Powers towards Protocol 3 to the Treaty of Rarotonga is very significant. France's position has already been stated. While the Soviet Union and China have signed that Protocol and the other two, the United States and the United Kingdom appear reluctant to do so, reflecting an attitude different from the one they took towards the two Additional Protocols to the Treaty of Tlatelolco.

We should consider the reluctance of these two Western nuclear Powers in the light of the position they took on the occasion of the Third Review Conference of the non-proliferation Treaty, held in 1985. On that occasion, the two Powers had no difficulty in subscribing to the unanimous view that the objectives of article VI of the Treaty, concerning the nuclear-arms race, remained unfulfilled.

However, when it came to the question of banning all

nuclear tests in all environments for all time, the reservations of the United States and United Kingdom became clear, and it proved impossible to include in the Final Document a text similar to the one on nuclear tests adopted at the First Review Conference. After arduous negotiations in the closing stages of the Third Review Conference, a compromise was reached, thanks in large part to the conciliatory spirit of the group of non-aligned and neutral States, which agreed not to put to the vote two resolutions reflecting their views fully in order to prevent the Review Conference from suffering the unhappy fate of its predecessor. The formulation agreed to was as follows:

> "The Conference except for certain States whose views are reflected in the following sub-paragraph deeply regretted that a comprehensive multilateral Nuclear Test Ban Treaty banning all nuclear tests by all States in all environments for all time had not been concluded so far and, therefore, called on the nuclear-weapon States Party to the Treaty to resume trilateral negotiations in 1985 and called on all the nuclear-weapon States to participate in the urgent negotiation and conclusion of such a Treaty as a matter of the highest priority in the Conference on Disarmament.
>
> "At the same time, the Conference noted that certain States Party to the Treaty, while committed to the goal of an effectively verifiable comprehensive Nuclear Test Ban Treaty, considered deep and verifiable reductions in existing arsenals of nuclear weapons as the highest priority in the process of pursuing the objectives of Article VI.
>
> The Conference also noted the statement of the USSR, as one of the nuclear-weapon States Party to the Treaty, recalling its repeatedly expressed readiness to proceed forthwith to negotiations, trilateral and multilateral, with the aim of concluding a comprehensive

Nuclear Test Ban Treaty and the submission by it of a draft Treaty proposal to this end."[3]

In this situation, and with the 1990 Review Conference, the last of its kind, imminent, it seems neither realistic nor practical to engage in a primarily legal debate on how, as David Fischer has rightly pointed out, the provisions of article VI of the non-proliferation Treaty fail to reflect adequately the corresponding purposes and principles set forth in the preamble to the Treaty. The latter coincide with those expressly stated in relation to nuclear tests in the 1963 partial test-ban Treaty.

This reluctance on the part of two nuclear Powers has extended, ever since 1985, to the only multilateral negotiating body in the disarmament field, the Conference on Disarmament. At its opening session last year, it was unable even to establish the long-awaited *Ad Hoc* Committee on nuclear weapon tests, in spite of the fact that it was precisely that year that these two Powers might have been expected to take a step forward in the Conference on Disarmament. If indeed, in the spirit implicit in the second of the three paragraphs cited above, the highest priority was to be given to reductions in existing arsenals of nuclear weapons in the process of complying with article VI of the non-proliferation Treaty, there was reason to believe that just such a process had already begun with the agreement between the USSR and the United States on eliminating their intermediate-range missiles.

To sum up, and returning to the difficulties that will face the next Review Conference, we might ask whether the United States and the United Kingdom will show the same reluctance and express the same reservations then, since the process of controlling and reducing nuclear arsenals, which has already begun, appears likely to continue. In any case, we cannot predict whether the group of non-aligned and neutral countries will react in the same way as they did in

1985, when their conciliatory attitude made it possible to adopt the Final Document.

Areas covered by the Tlatelolco, Rarotonga and Antarctic Treaties and Their Relationship to the Zone of Peace and Co-operation of the South Atlantic

The deliberate attempt by the Treaty of Rarotonga to make its area of application contiguous with that of the Treaty of Tlatelolco and also to make these two areas converge on the 60th parallel, marking the northern limits of the zone covered by the Antarctic Treaty, has created what Ambassador Carasales calls a "composite of contiguous areas". While it is true that the applicability of the Treaty of Rarotonga to maritime areas is subject to the limitations mentioned above and that the area of application of the Treaty of Tlatelolco, as provided for therein, has yet to come into force, the most important thing here is the political reality of a convergence of sovereign wills in a large area of the world which has so far been the one least affected by global and regional conflicts.

The declaration of a zone of peace and co-operation of the South Atlantic by the United Nations General Assembly in October 1986 was an extremely important development. While its impact is not comparable with that of the Treaties of Tlatelolco and Rarotonga, it shares the same basic purposes and, like them, takes certain steps towards the maintenance of peace in the southern hemisphere.

The similarities mentioned are implicit in the position taken by Héctor Gros Espiell, who maintains that while the concept of a zone of peace has not been formulated in treaty terms or confirmed by legal doctrine, there can be no question that, in so far as nuclear weapons are concerned, it involves the non-introduction and non-use of such weapons in the zone in question.

Despite this word of warning on the evolving legal status of zones of peace, we should bear in mind paragraph 64 of the 1978 Final Document of the Tenth Special Session of the General Assembly, which states that such zones must be clearly defined and determined freely by the States concerned in the zone, taking into account the characteristics of the zone and the principles of the Charter of the United Nations.

It would be pointless to ignore the fact that the zone of peace and co-operation of the South Atlantic was promoted by Brazil, for understandable geopolitical reasons, and firmly supported by Argentina, motivated by concern at the repercussions of the 1982 Malvinas war.

Argentina's allegation that nuclear weapons might have been used and deployed during the Malvinas conflict and, above all, its accusation that nuclear-powered vessels were used (specifically, in the sinking of the *Belgrano*), are well known. Although Argentina has not ratified the Treaty of Tlatelolco, it invoked its provisions in the above connection. At its eighth session, the OPANAL General Conference adopted resolution 170, by which, "noting with concern" the complaint by Argentina and expressing concern at the use of nuclear submarines in the area of application of the Treaty, it also noted the United Kingdom's assertion that it had fulfilled its obligations under the Protocols to the Treaty of Tlatelolco.

The reaction of the OPANAL General Conference may have been something of a political disappointment for many countries of the region, but the fact is that the existence of a nuclear submarine is quite a separate issue from the nuclear weapons it may carry. Both the Treaty of Tlatelolco and the Treaty of Rarotonga make this distinction.

As for the "concern" expressed at the presence of nuclear submarines, the author of this paper had this to say in a recent article:[4]

"The United Kingdom claimed not to have deployed nuclear weapons in areas in which the Treaty of Tlatelolco was in force. While it is true that the area of application of the Treaty is still not fully in force, this claim clearly contradicts the spirit of the Treaty of Tlatelolco, for the United Kingdom never denied categorically that, during the Malvinas war, nuclear weapons might have been not only carried but also, and more seriously, deployed . . . ".

In this connection it is useful to bear in mind some conclusions of the report on the naval arms race prepared by the Secretary-General of the United Nations.[5] It mentions, among other types of geographical restraint, limitations on naval deployments in certain oceans or seas or reductions in the level of military presence in appropriate regions distant from the home territory of the State in question. It also mentions possible limitations on the duration or size of naval manoeuvres in certain areas and the reduction of existing, and the prohibition of new, foreign naval bases.

Notes

1 In writing this article, I have considered and followed up on the ideas expressed in the following three articles and papers:

John R. Redick, *Nuclear Restraint in Latin America: Argentina and Brazil* (Programme for Promoting Nuclear Non-Proliferation, June 1988). Occasional Paper No. 1.

Julio C. Carasales, "Tlatelolco y TNP: relación sin dependencia", *Vigésimo Aniversario del Tratado de Tlatelolco* (OPANAL), 1987.

David A. V. Fischer, *The International Non-Proliferation Régime 1987* (UNIDIR/United Nations publication, Sales No. GV.E.87.0.2).

2 Héctor Gros Espiell, "El conflicto bélico de 1982 en el Atlántico Sur y el Tratado de Tlatelolco", *Vigésimo Aniversario del Tratado de Tlatelolco*.

3 *Final Document of the Third Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons*, part I (NPT/CONF.III/64/I), Geneva, 1985, annex I, article VI, B, para. 12.

4 Jorge Morelli Pando, "El transporte de armas nucleares y las naves propulsadas por energía atómica", *Vigésimo Aniversario del Tratado del Tlatelolco*.

5 *The Naval Arms Race* (United Nations publication, Sales No. E.86.IX.3).

Towards the 1990 Non-Proliferation
Treaty Review Conference

A Dialogue between the Parties and Non-Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Mohamed I. Shaker

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) has been in existence for twenty years. During this period it has won respect and has been recognized and adhered to by 142 States. It stands out as the centre-piece of the multifaceted nuclear non-proliferation régime. In 1995 a conference will be held to determine its duration and prospects for the future. No withdrawals from the NPT have taken place to date although some dramatic events relating to the subject-matter of the Treaty might have led to such a possibility. This indicates that those parties involved in or affected by such events realize that their continued affiliation with the NPT is important for their security and for the peaceful development of their nuclear-energy resources. In other words, the NPT has proved its strength and has had an impact on those committed to it and to its objectives in spite of all the grievances and disappointments experienced with regard to the implementation of some of its provisions.

Mohamed I. Shaker is Ambassador of the Arab Republic of Egypt to the United Kingdom of Great Britain and Northern Ireland and was President of the Third Review Conference of the NPT in 1985. The views expressed in this article are strictly his own and do not represent an official view.

In these twenty years three review conferences of the Treaty have been held, and although the Second Review Conference, held in 1980, failed to produce a final declaration, the review conferences have helped consolidate the NPT and the non-proliferation régime itself.

The non-proliferation Treaty is universal in character: it is open to all States. However, a number of non-nuclear-weapon States known to be well advanced in nuclear technology have refused so far to adhere to it—for a number of complex and diverse reasons involving principles, economics and security. With regard to principles, these States consider the Treaty discriminatory in that it imposes different obligations on nuclear-weapon States and on non-nuclear-weapon States. Some have also wished to be able, by their own means, to manufacture and use nuclear explosive devices for peaceful purposes. Others have considered that the Treaty is not sufficient to achieve disarmament, more particularly nuclear disarmament, and that it lacks credible guarantees assuring the non-nuclear-weapon States against attacks or threats of attack from the nuclear-weapon States. The absence of these States from the NPT régime certainly weakens it, especially since these States are very well advanced in nuclear technology and they are not immune from real or potential conflicts in their areas. In the last few years and in the literature dealing with the non-proliferation of nuclear weapons these States have been identified: they are Argentina, Brazil, India, Israel, Pakistan and South Africa, the so-called threshold States. There are also others that have not found it necessary or advantageous to adhere to the NPT. While adherence of all would certainly be welcomed, it is the case of the six States mentioned that has been the focus of attention since the NPT entered into force in 1970.

The initial vehemence of some non-parties in regard to the Treaty itself, whether in the course of the negotiations on it or in the early stages of its implementation, has waned

to some extent in the last few years. Some have indicated that they might in the future accommodate themselves to the NPT if certain circumstances or conditions prevailed. One State has even suggested that it might come up with a new text of its own on non-proliferation.

At the last Review Conference of the NPT, held in Geneva in 1985, a significant number of non-parties participated as observers and followed its procedures and debates closely. They had a chance to contact a number of parties to inquire about certain aspects of the Conference and about the implementation of the NPT. In my capacity as President of the Conference I did not detect any attempt on their part to disrupt the review process at the Conference. They did not even try to exploit certain weaknesses of the Treaty or delays in its implementation to complicate the process. In general they had not tried, behind the scenes, to influence the course of events at a conference which had gone through very difficult periods in the formulation of its Final Declaration. I believe that these countries came out of the Conference impressed by its achievements and by the determination of the parties to the NPT to have a successful review of the Treaty, and with a sense of commitment to the Treaty and its objectives. In the five years that followed the 1985 Review Conference the rhetoric against the Treaty by those States that were refraining from adhering to it has weakened and their representatives in different forums, whether in Geneva, New York or Vienna, have never shied away from discussing with representatives of the parties to the Treaty different aspects of it or of its implementation. They have done so in a constructive and objective manner.

It is apparently against this background that at the first session of the Preparatory Committee of the Fourth Review Conference of the NPT, which met in New York between 1 and 5 May 1989, that the delegation of Egypt, in a statement to the Committee, broached the question of the importance

of universal adherence to the Treaty. It suggested that the parties to the NPT should consult among themselves on the best means of furthering the non-proliferation and co-operation elements of the Treaty for the benefit of the parties to the Treaty, and in a manner that could attract non-parties to adhere to it. It suggested that non-parties might be invited to participate in these consultations at an appropriate stage. The statement went on to say that all States, parties and non-parties, should see the opportunity provided by the review process to inject new life and momentum into the nuclear disarmament process and that at this auspicious juncture in the life of the NPT, parties and non-parties alike should engage in a constructive action-oriented dialogue directed towards really making the NPT the corner-stone of a universally acceptable non-proliferation régime. The statement advanced the view that, at a very early stage, the review process should attempt to develop modalities and parameters that would provide for a constructive dialogue between parties and non-parties to the Treaty towards this objective.

Turning its attention more specifically to the case of certain threshold States, the Egyptian statement had the following to say:

> "The Parties to the Treaty would be remiss in their duties if they were to ignore the threat posed to the non-proliferation efforts and to international peace and security by the nuclear programmes of some non-parties. The Parties to the NPT, particularly the depositaries, should consider how to consult with non-parties that have internationally recognized nuclear military programmes constituting a threat to regional and international peace and security, to verify that they have not acquired nuclear weapons, and persuade them to apply International Atomic Energy Agency safeguards to their nuclear facilities. The Parties cannot continue to lend a blind eye to this threat. Absence of serious

undertakings in this regard can only be weighed against the seriousness and sincerity of the commitment of the Parties to the non-proliferation of nuclear weapons and the ultimate goal of nuclear disarmament."

The Egyptian intervention at the first session of the Preparatory Committee of the forthcoming Review Conference of the NPT has aroused great interest among the parties to the Treaty and has generated very useful exchanges of views. In general, the initial reactions have been positive and encouraging. There has been no outright rejection of such an approach although some prefer not to institutionalize such a dialogue and some have even expressed the view that such a dialogue should in no way be a prelude to, or a vehicle for, modification or alteration of the Treaty and that the objective of the dialogue should be to encourage and convince the hesitant non-parties to accept the virtues and benefits of the NPT.

More specifically, the idea of a dialogue between parties to the NPT and non-parties to it would involve a number of issues, including the objective of the dialogue, the parties to it, the forum or forums, or the set-up of such a dialogue, and the main issues to be dealt with in the dialogue.

The objective of such a dialogue is mainly to induce and attract non-parties to the NPT to adhere to it or at least, in the case of certain threshold States, to guard against the possibility of crossing the threshold. This should certainly be carried out in an atmosphere conducive to considering with an open mind the views of the non-parties. Some parties to the NPT might initially warn that such a dialogue could affect the Treaty and its foundations if the non-parties remained unwavering in their positions. They might fear that the impact or influence of non-parties on those already converted to the NPT could be disruptive.

In my view, such a dialogue could have the opposite result. It could lead non-parties to seriously reconsider their

attitudes towards the NPT. They are the much smaller group and they have a multitude of interests to protect and develop. The dialogue should be such that both participants in it might come out of it better informed about the Treaty itself and about how to make it a more effective instrument, not only for prohibiting the proliferation of nuclear weapons but for promoting peaceful co-operation in the field of nuclear energy.

Some might raise the possibility that such a dialogue would lead to an amendment of the Treaty, which should in no way be tampered with in the present circumstances. What is important in embarking on such a dialogue is that it be done with an open mind and with a willingness to exchange views without prejudices and that it be carried out in a very frank atmosphere. Amending the Treaty is a complicated process and should not be done lightly. In the review conferences that have taken place, the main concern of the parties was not the amendment of the Treaty but its full implementation, as well as the expansion of the non-proliferation régime by other measures in the field of disarmament, security, peaceful nuclear co-operation, and regional arrangements.

One might argue that even if the dialogue did not lead to increased adherence to the NPT in the foreseeable future it would definitely help in reassessing certain aspects of the Treaty and their implementation and would lead to a better understanding, on the part of the non-parties, of the reasons why the Treaty should remain the centre-piece of the non-proliferation régime. The dialogue should be motivated by a keen interest in bolstering the NPT and in enhancing its viability. Fear of some far-fetched possibilities of drastic changes or alterations in the Treaty should not dissuade the parties from embarking on such a much-needed exercise.

The dialogue should in principle be open to all those interested in such an exercise, whether parties or non-parties to the NPT. With regard to the latter, certainly the six coun-

tries mentioned above should be the main interlocutors, without prejudice to the interest of others to join as well.

As to the forum or forums for such a dialogue, it should be emphasized that, in order to be effective, the dialogue should be carried on informally. It should not be a dialogue in the form of a meeting of delegations or representatives round a negotiating table. The dialogue should not necessarily be carried out with the participation of potential parties to it all meeting in one place. It should be remembered that each non-party to the NPT continues to have its own special reasons for not adhering to it. The cases are different, and each of them needs to be addressed individually.

One informal gathering—that of "the friends of the NPT" in Vienna—is in my view an ideal setting for a dialogue with the non-parties. This group, which met in Vienna recently, has been meeting regularly to review the operation of the Treaty and its implementation and various aspects of it. "The friends of the NPT" can easily invite a representative of a non-party to the Treaty to join in their periodic meetings and discuss informally issues of interest to that particular non-party. Furthermore, and for the sake of informality, it is not necessary for all the present "friends" to meet with a particular non-party. Perhaps only those directly concerned with the non-party could meet with its representative or representatives. The "friends" could also meet with more than one non-party, with their consent, if their cases are similar or closely interrelated. An important element is that informality should inspire a varied combination of parties to the dialogue according to circumstances and requirements. A division of labour among "the friends of the NPT" would be useful for the follow-up of the results of their dialogue with the non-parties.

As Vienna is the site of IAEA and as the interest of "the friends of the NPT" would therefore tend to focus on issues of peaceful nuclear co-operation and the application

of safeguards, it would be desirable if other groups of the same nature, not too large and not too small, could also take shape in places such as Geneva and New York, where the interest is generally focused on issues of disarmament and security. The "friends" in the three cities could exchange among themselves the results of their contacts and relevant information through their respective chairmen.

As we approach the year 1995, when the conference on the question of extending the NPT is almost sure to take place, the three groups in Geneva, New York and Vienna could prove to be very useful in the period between the Fourth Review Conference in September 1990 and the crucial extension conference in securing the future of the NPT régime and enlarging its membership.

As to the subjects to be discussed in the dialogue, it is important that the dialogue should be open-ended in this respect. There should not necessarily be a set agenda, although some structure would of course be needed in the consultations. The specific issues to be tackled in the dialogue should include peaceful nuclear co-operation, disarmament and, more particularly, nuclear disarmament, regional arrangements for ensuring the absence of nuclear weapons in certain parts of the world, security assurances and international safeguards. Certainly one of the most difficult topics that could come up in the dialogue is that of the conceptual framework of the NPT, which is based mainly on the distinction between two categories of States, nuclear-weapon States and non-nuclear-weapon States, with all the consequences that follow in the Treaty.

In the dialogue it would be of crucial importance for the parties to the NPT to demonstrate to their interlocutors, the non-parties to the NPT, that the Treaty is doing well in the aforementioned domains and particularly in the field of disarmament. Progress in disarmament will be the real test for the NPT in 1990, and more particularly in 1995 when

the initial period of the Treaty comes to an end. Moreover, the dialogue will be most fruitful if it also, as mentioned earlier, deals attentively with the special circumstances of each participant non-party to the Treaty. A better understanding of those circumstances could be the key to wider adherence to the NPT or could result in avoiding complicating factors detrimental to the NPT régime.

The proposed dialogue should be approached with openness and without prejudices or preconceived notions. The East-West dialogue flourished in 1989 and is expected to continue to do so in 1990, and in the new spirit that prevails in the world today parties and non-parties to the NPT should do their utmost to encourage, and participate in, a dialogue relating to an instrument considered to be one of the most important treaties signed in the era following the Second World War.

Peace and Security in
the Asia-Pacific Region

Prospects of Arms Limitations in the Asia-Pacific Region

Jayantha Dhanapala

Introduction

The Asia-Pacific region is vast, encompassing a large number of countries which are littoral and hinterland States of the Indian Ocean and the Pacific Ocean. It is a region that has witnessed major international conflicts since the Second World War.

Regions and subregions cannot, of course, be regarded as water-tight compartments. The rapid integration of the global system through political and economic interchange has been accelerated by the combined pressures of technological change, modern communications and the response to the challenge of environmental degradation. The prospects for arms limitation in one area cannot therefore be considered without taking into account the global trends set in motion by the super-Powers and developments in other regions. Thus even the subregions of north-east Asia and south Asia are interconnected, not least by the naval presence of the super-Powers in the Indian and Pacific Oceans and their naval

Jayantha Dhanapala is Director of the United Nations Institute for Disarmament Research (UNIDIR) in Geneva. The views expressed in this paper are not necessarily those of UNIDIR.

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strategies. About 50 per cent of the United States Navy is based in the Pacific, while the USSR has half its submarines there. Both have a considerable presence in the Indian Ocean. Moreover, since the Sino-Indian war of 1962 and its prelude, developments in Sino-Indian relations have had a strong influence on prospects for arms limitation in south Asia, dominated as it is by the overwhelming size of India.

While we are witnessing the dismantling of the Brezhnev doctrine of limited sovereignty in Eastern Europe, its assertion elsewhere—and not only by the great Powers—reminds us that spheres of influence are still being staked out. Power projections of major Powers and other countries are not confined to their own regions and subregions and thus a discussion of arms limitation prospects in specific areas is more complex than it might appear.

Three nuclear great Powers—the USSR, the United States and China—and two potential great Powers—Japan and India—occupy dominant positions in the Asia-Pacific region as a whole. Cultural diversity and different perceptions of economic and political interest are factors that must be taken into account in their interaction, which affects the other States in the region—mostly developing countries desperately seeking conditions of peace and stability to improve the quality of life of their people and make possible the modernization of their societies.[1]

North-East Asia

The north-east Asian region is characterized by the unique configuration of Powers in it and the undisputed importance of maritime Powers. The two super-Powers—the USSR and the United States—face each other across the Pacific Ocean while another great Power, China, looms large in the region together with the economic super-Power, Japan. In addition, the unresolved confrontation between North and South Korea has added tension in the region, with over

40,000 United States troops stationed in the Republic of Korea. The vast expanse of the Pacific Ocean lying between the super-Powers and the crucial importance of sea lanes for the survival of Japan's industrial powerhouse make the likelihood of naval warfare greater than in many other regions.

The area—once described by Brzezinski as the "Second Strategic Theatre"—has, since the Korean War, been regarded as a powder-keg. The 1989 *SIPRI Yearbook* notes with regard to regional military expenditures that in the mid-1980s "about 10 per cent of the world total was being spent by the countries in the Asian-Pacific region", adding that, outside of Europe, "this was the highest regional concentration of defence spending".[2] Growth rates of defence expenditure were also noted as being high. The IISS publication *The Military Balance 1987-1988*[3] estimates that out of a total global defence expenditure of approximately $900 billion the two super-Powers and their alliances accounted for 75 to 80 per cent, and the total Asian expenditure excluding Indochina was $65 billion or 7.2 per cent.

The dramatic economic prosperity in this subregion after the Second World War has heightened its strategic importance, leading to somewhat extravagant claims of a "Pacific Century". The miracle of Japan's recovery after the Second World War and its emergence as a front-line economic Power has its own politico-strategic implications. The wider Asia-Pacific region or the Pacific Basin contains the booming newly industrializing countries (NICs), together with Australia and New Zealand, making the prosperity of the area quite broad-based. The economic potential of the eastern USSR with its oil and gas deposits and that of China add to the economic importance of the region in global terms, especially in foreign trade, shipping and financial services. One estimate is that the subregion is very likely to contain over 20 per cent of world gross domestic product (GDP) by the year 2000, equalling that of Europe or of the United

States.[4] Trading patterns and the productivity of the area, both current and potential, convert north-east Asia into an indisputably important strategic theatre.

Because of this importance and close linkages to the two super-Powers, north-east Asia is strongly influenced by the changing relationships between those Powers. The dramatic improvement in the USSR-United States relationship in the period 1985-1990 and the bewildering velocity of political changes in Europe have had world-wide repercussions. In north-east Asia the same general improvement in international relations and prospects for disarmament and international security can be expected. At the same time, the individual roles of China and Japan and the complex relations between North and South Korea must be considered. These aspects give the subregion an internal dynamic that is unique. A detailed analysis of likely trends in arms limitation involves discussion of the approaches of the countries in the area and the interplay of their relations.

President Gorbachev's Proposals

The change in Soviet foreign policy brought about by Mikhail Gorbachev has not been focused on the European theatre alone. In his important Vladivostok speech of July 1986 and the Krasnoyarsk speech of September 1988 he made important proposals for the Asia-Pacific region, recognizing the United States as a Pacific Power and offering "new, fair relations in Asia and the Pacific". The proposals call for a freeze in the number of nuclear weapons in the region and reductions or a freeze in naval force deployments, especially nuclear-armed ships; a dismantling of Soviet bases in the region, provided that there is a reciprocal move by the United States; guarantees of the security of sea lanes and air communications; reduction of armed forces and conventional arms to levels of "reasonable sufficiency"; the lowering of military confrontation; and the establishment of regional ne-

gotiating machinery for confidence-building measures and arms control. The response to these proposals and actual negotiations on them have been superseded by the conclusion of the Treaty between the United States and the Soviet Union on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (INF Treaty), the negotiations on a 50 per cent reduction of their strategic nuclear weapons (START), and the negotiations on conventional armed forces in Europe (CFE), which signify a preoccupation with relations between NATO and the Warsaw Treaty (WTO) having a greater priority. The proposals, however, remain on the table and will have to be addressed in any discussion of arms limitation in the Asia-Pacific region. They have been buttressed by unilateral moves such as major withdrawals of Soviet troops from Mongolia.

Nuclear Weapons

The self-evident priority of nuclear disarmament requires that we examine first the prospects for nuclear arms limitation in north-east Asia, where indeed the first nuclear bombs were used. Three declared nuclear Powers exist in the region. The existing INF Treaty, 70 per cent of which has been implemented today and the much-heralded and long-awaited START agreement promising a 50 per cent reduction in the strategic nuclear arsenals of the USSR and the United States will undoubtedly have their impact in the region. It has been suggested that the Soviet Union and the United States should act reciprocally to close their bases in the Pacific such as Cam Ranh Bay and Guam.[5] Negotiations on the United States Subic Bay naval base facility with the Philippines were expected to be tough, but the precarious position of the Aquino Government after the recent attempted coup makes any fundamental change unlikely. It is estimated that China, the USSR and the United States have nearly 3,000 nuclear warheads committed to the Pacific Ocean area. The

proliferation of nuclear weapons at sea has been an alarming feature in the Pacific. Both the USSR and the United States maintain large fleets in the Pacific. Infrastructural facilities for nuclear warfare are also located in the region by the three States. A reduction of the nuclear-weapon deployments by the USSR and the United States in this region will have to result from a global arrangement between the super-Powers. Such an arrangement should include limitations on sea-launched cruise missiles (SLCMs).

China's continued modernization of its nuclear arsenal—especially the 1988 nuclear weapon test believed to be of a neutron bomb, and continuing submarine-launched ballistic missile (SLBM) tests—indicates no reduction in nuclear arms despite an improving relationship with the USSR. The alleged neutron bomb test has been interpreted as a Chinese effort to develop tactical nuclear weapons, which would reflect a departure from its earlier minimal nuclear force posture, which has been confined to long-range weapon delivery systems.[6] The SLBM test has also caused disquiet within the region since it is seen as an indication that China is close to having nuclear-powered ballistic missile submarines with operational capability. A related development was the Chinese sale of intermediate-range ballistic missiles to Saudi Arabia, although these were modified to carry conventional warheads. The implication is that China is phasing out this category of missiles and developing a new generation of missiles and that it is also a source of ballistic missile proliferation, and this has created great concern. Despite these developments, the political crisis caused by the events in Tiananmen Square in June 1989 and the severe austerity programme launched by the Chinese leadership are bound to affect China's nuclear arms development programme. In addition, it is encouraging continuation of the process of *rapprochement* with the USSR.

Despite the fact that both the Republic of Korea and

the Democratic People's Republic of Korea have signed the Treaty on the Non-Proliferation of Nuclear Weapons, rumours have persisted about clandestine nuclear-weapon programmes. Full access by the International Atomic Energy Agency (IAEA) to nuclear power plants in the Korean peninsula would enhance confidence in the region. It has been noted that

> "if either of the Koreas were to acquire the capability to extract plutonium from spent reactor fuel, nuclear tensions would intensify significantly".[7]

Reports in 1987 that Taiwan was engaged in constructing a small-scale plutonium extraction unit led to fears that Taiwan was considering a nuclear-weapon option.[8] United States intervention resulted in the halting of work on a 40-megawatt research reactor supplied by Canada and in its dismantling. Political trends in the region will ultimately determine whether Taiwan's leadership will provide credible proof of abandoning any nuclear ambitions it may harbour.

Chemical Weapons

The danger from chemical weapons does not appear to be a major problem in north-east Asia, and with moves in the Conference on Disarmament to achieve the speedy conclusion of a comprehensive chemical weapons ban instrument, one can safely conclude that the prospect of the development and use of chemical weapons in north-east Asia is unlikely. There have, however, been allegations traded between the two Koreas regarding the stockpiling of chemical weapons. China's sale of missiles outside the region has also led to fears that the purchasers may equip such missiles to carry chemical weapons. Within the larger Asia-Pacific region, Australia has proposed creating a chemical-weapon-free zone in the Pacific.

Conventional Weapons

With regard to conventional weapons, economic pressures have prompted Soviet initiatives for arms limitation and caused an actual decline in China's military expenditure. In China, political changes led to important defence reductions linked to new military strategies. China's military forces were cut by 1 million troops, and large defence industries were converted to serve civilian needs. The pragmatic trends in China's foreign policy appeared to suffer a set-back following the June 1989 crisis and the sharp international reaction to it. However, China's acceptance of a United Nations role in the resolution of the Cambodian problem, Li Peng's visit to Moscow and other attempts by China to resume its international responsibilities augur well. The pattern of reduced defence spending is likely to continue, largely because of economic pressures and the restructuring that is going on within China. According to official statistics, the share of the defence budget in the total budget was halved, to around 8 per cent, in 1988.

In Japan, concerns have been expressed regarding the breach of the self-imposed ceiling of 1 per cent of GNP for defence expenditure. The last budget showed a growth of 5.2 per cent in defence expenditure and this upward trend is expected to continue. Japan has emerged as one of the top six military spenders in the world. It has, however, been argued that the strengthening of the yen *vis-à-vis* the United States dollar has inflated Japanese defence spending. While in real terms defence expenditure has increased and an expansion of military capability has occurred, Japan remains defence-oriented in terms of article 9 of its Constitution and without a long-range attack capability. Its arms production remains low. Moreover, United States pressures for burden-sharing have contributed to Japan's increased allocations for defence. In the period 1984-1988 Japan was the fourth largest importer of arms, most of which came from the United States.

Defence expenditures by North and South Korea remain high. Economic constraints and policy shifts at the top may lead to changes in North Korea, especially if there is an acceleration of the current North-South conciliatory moves. North Korea was the eighth largest importer of arms in the period 1984-1988. Its possession of Scud missile technology and of the fourth largest air force in the world is significant. South Korea too has a missile capability. So does Taiwan.

The Soviet–United States negotiations on arms reductions and limitations have a greater potential to improve prospects for arms limitation in north-east Asia than in south Asia. It should at the minimum decrease United States–USSR arms supplies, which in the period 1971-1985 accounted for 80 per cent of the total volume. The progress of USSR–China *rapprochement* is also important for developments in north-east Asia and its security environment. Tensions in the Korean peninsula remain, however, and have shown themselves to be governed more by indigenous factors than by great-Power relations in the area—although the problem has in the past been exacerbated by super-Power rivalry. The Japan–United States security nexus is also an important factor in the subregion. An improvement in USSR–United States relations alone will not be sufficient to allay Japanese apprehensions of the USSR, and progress in resolving disputes between the USSR and Japan is necessary. No regional organization exists in north-east Asia to encourage the diminution of political tensions and facilitate arms limitations and political co-operation.

South Asia

In the south Asian subregion we are confronted by the fact of India's overwhelming size and power. Relations between India and its neighbours, especially Pakistan, are crucial to the stability of the area. The Indian Ocean, with the

prospect of naval competition within it, is another important factor.

Nuclear Weapons

The peaceful nuclear explosion carried out by India in 1974, together with its refusal to sign the non-proliferation Treaty, has led to persistent rumours of India's nuclear-weapon capability. Policies pursued since the time of Zulfiquar Ali Bhutto in Pakistan, evidence of clandestine acquisition of technology and *matériel*, and the existence of the unsafeguarded Kahuta enrichment plant have also led to suspicions that Pakistan—which is also outside the NPT régime—is engaged in a clandestine nuclear-weapon programme. At any rate, both countries are commonly referred to as nuclear "threshold" States with a nuclear-weapon capability. While both have officially proclaimed that their nuclear programmes are for peaceful purposes, they have also asserted that they could build the bomb if they so wished. The perception of a nuclear arms race between India and Pakistan, even if it is not based on fact, has a destabilizing influence.[9] Since the partition in 1947 the two countries have been at war on three occasions. Despite the Simla Accords of 1972, tensions have waxed and waned. Domestic unrest in India, specifically in the Punjab and in Jammu and Kashmir, has been blamed on Pakistan, and mutual suspicions have lingered. The emergence of a democratically elected government in Pakistan led by Benazir Bhutto presented an opportunity for change. Her statement rejecting a nuclear-weapon option for Pakistan and the agreement reached with India on 31 December 1988 to exchange information on nuclear plants and not to attack each other's nuclear installations have opened a new chapter. The defeat of the Congress Party Government in India and the appointment of Vishwanath Pratap Singh as the new Prime Minister is widely expected to signal improved relations between India and its

neighbours. We may therefore expect steps that will allay suspicions of a nuclear arms race between India and Pakistan. It remains to be seen whether Sino-Indian negotiations will progress in such a way as to reduce the level of hostility between those two countries.

Chemical Weapons

The south Asian subregion is not known to have any stocks of chemical weapons, and although allegations of the use of such weapons in Afghanistan have been made, these were directed against the USSR. South Asian States have co-operated in the international quest for a comprehensive ban on chemical weapons.

Conventional Weapons

With regard to conventional arms the situation is not very reassuring. The 1989 *SIPRI Yearbook* reports that:

> "Thus far in the 1980s, India has become the country which imports the greatest number of major conventional weapons in the world. The Indian Army, Navy, Air Force and Coast Guard have all been recipients of significant amounts of new equipment either imported directly or produced under licence in India."[10]

There is no denying the fact that India's conventional armed forces are widely regarded as being in excess of its subregional needs even if Pakistan is regarded as a threat. India's smaller neighbours can only aspire to be minor irritants. Thus India's armed might has an extra-subregional rationale, ostensibly for defence against an extra-subregional threat. Its purchases for the period 1984-1988 placed India as the second largest procurer of conventional weapons in the world—next only to Iraq, which was involved in a war with Iran at the time. India's blue-water naval capability was enhanced significantly with the lease of nuclear-powered attack submarines from the USSR. Its domestic arms

production sector has grown and India has become an arms exporter.

India's missile programme has also led to concern, both within and outside south Asia. It has been known that India had a programme for developing space launch vehicles (SLVs), which was described as being for civilian purposes. In addition, a military missile programme has been initiated, and in February 1988 a ballistic missile (known as the Prithvi) with a range of 250 km and a payload of about 1000 kg was successfully tested. A larger ballistic missile (the Agni), officially described as being for research purposes and with a longer range of 2400 km, was successfully tested on 22 May 1989. The combination of India's acquisition of nuclear-powered submarines and the development of missiles with longer ranges than necessary for purely defensive requirements represents a qualitative escalation in the militarization of south Asia.

Pakistan's military expenditure received a major boost following the intervention of the USSR in Afghanistan and the conversion of the country as a base for Afghan *mujaheddin* resistance to the pro-Soviet Government installed in Kabul. SIPRI'S tentative figures place Pakistan's military expenditure at between 6.6 and 6.9 per cent of GDP during the period 1981-1986 (India's was between 3 and 3.7 per cent). In April 1988 Pakistan announced the testing of two types of ballistic missiles. On 5 February 1989 a further test, of a surface-to-surface long-range missile, was announced. Pakistan also has a civilian rocket research programme and a space-launch vehicle programme. With Pakistan's nuclear-weapon capability having been widely rumoured, attention has been focused on the possible delivery of such weapons by long-range aircraft. With the withdrawal of Soviet troops from Afghanistan and negotiations with a view to arriving at a permanent settlement of the Afghan problem the rationale for these forms of military expenditure by Pakistan has di-

minished. However, until the various issues are negotiated, tensions will remain between India and Pakistan.

Military expenditure in other countries of south Asia is not so significant as to pose a threat to the stability of their neighbours. In Sri Lanka, while the internal conflicts caused by Tamil militant groups and the People's Liberation Front continue at horrendously brutal levels, actual defence expenditure has begun to decline. The Sri Lanka phenomenon and the Sikh agitation in India focus on the problem of arms acquisition by sub-national groups and the need for curbs on the arms trade. The abortive Maldivian coup of 1988, which employed mercenaries, highlighted the special security needs of small States and led to the adoption, at the forty-fourth session of the General Assembly, of a resolution, sponsored by Maldives, on the use of mercenaries.

The Indian Ocean as a Zone of Peace

The implementation of the 1971 United Nations Declaration of the Indian Ocean as a Zone of Peace would be a key factor in achieving arms limitation in South Asia. Despite favourable developments in the relationship between the super-Powers, the withdrawal of Soviet forces from Afghanistan and the progress achieved in other regional conflicts, the convening of the Conference to convert the Indian Ocean into a zone of peace remains a controversial issue. At its most recent meeting, the three Western nuclear weapon Powers announced their decision to withdraw from the *Ad Hoc* Committee on the Indian Ocean, while all but two of the remaining Western States decided not to participate in the committee's work. This has added further complications to the functioning of the *Ad Hoc* Committee and the negotiations for the convening of the Conference.

Within the *Ad Hoc* Committee on the Indian Ocean a host of proposals have been made for confidence-building measures on land and at sea. At the Meeting of the Littoral

and Hinterland States of the Indian Ocean held in 1979 a set of principles was adopted forming a code of conduct. Adherence to this code would undoubtedly encourage arms limitation in the area, and an initiative could be taken by Indian Ocean States outside the *Ad Hoc* Committee. The presence in the *Ad Hoc* Committee of the permanent members of the Security Council, the major maritime users of the Indian Ocean and other Member States has made the task of achieving consensus a difficult one. A date for the Colombo Conference with universal participation is the first issue on which there has to be a consensus before the Indian Ocean can be converted into a zone of peace binding the countries both within and outside the region to a code ensuring regional peace and security and facilitating arms reduction both on land and at sea.

Asia-Pacific Regional Features

Naval Arms

Both the Pacific Ocean and the Indian Ocean are characterized by a high level of military activity; hence the subject of curbing the naval arms race must be addressed. While the navies of the super-Powers enjoy dominant positions, there is also concern about the growing naval strength of States in the Asia-Pacific region. The need to include naval arms control in the disarmament negotiations between the United States and the USSR is urgent. The risk of incidents at sea leading to war is grave. Economic constraints have already acted in the United States to reduce the naval budget, and this factor alone may result in naval arms limitation. Arguments that an asymmetry exists between the two super-Powers, with the United States perceiving itself as a maritime island nation having a genuine need to protect its sea links for national security reasons, have been advanced to justify its global naval presence and to oppose moves towards

naval arms control. Proposals by the USSR such as those made in President Gorbachev's Vladivostok and Krasnoyarsk statements in pursuit of naval arms control have thus met with a negative response. However, the inclusion of SLBM launches in the 1988 Ballistic Missile Launch Notification Agreement and the application to the naval area of the 1989 Prevention of Dangerous Military Activities Agreement indicate that small steps are possible as confidence-building measures. Even if actual reductions of naval forces do not take place, the adoption of a number of limited measures, such as notification of naval exercises, negotiation of a multilateral incidents-at-sea régime, and exchanges of information, appear possible.[11] None of the measures that are being discussed is specific to the regions of the Indian and Pacific Oceans. The measures are global in scope but should be of major effect in reducing tensions, caused by the naval arms race, in the Indian and Pacific Oceans.

Politics or Economics?

Francis Fukuyama has discerned in the tumultuous events of the recent past a triumph of liberal democracy over Marxism-Leninism, which he has perhaps presumptuously labelled "the end of history", deriving the notion from the Marxist view of history as a dialectical process and the Hegelian view that history is motivated by overcoming contradictions between thesis and antithesis. Others have demurred over this hyperbole and have referred to an acceleration of history with "imperial overstretch" affecting both the United States and the USSR. Both notions reflect essentially a Eurocentric view, the applicability of which to the Asia-Pacific region is more apparent than real. The non-aligned countries in the Asia-Pacific region have long and consistently stood for an independent approach to international relations outside the contradiction between the two alliances of the post-Second World War bipolar world, portrayed at the time in Man-

ichaean terms. Safeguarding their national independence from all forms of domination and intervention, these nations have for decades been pledged to the principles of peace, disarmament and the democratization of international relations, and to multilateral co-operation, especially through the United Nations. The inception of the Movement of Non-aligned Countries can in fact be traced to the Bandung Conference of 1955 in the Asia-Pacific region. Fukuyama himself in a subsequent article looks ahead to "a world where economic concerns are dominant, where no ideological grounds exist for major conflict between nations, and where, consequently, the use of military force becomes less legitimate". He adds:

> "Consumers do not always want what can be measured in GNP. They also demand things like clean air and a safe environment for their children, and it is this broader set of goals that will shape the political agendas, both domestic and international, of the post-historical world."[12]

The emergence of the NICs in the Asia-Pacific region, the post-1979 economic reforms in China, and the achievement of self-sufficiency in cereals in India are examples of the region's economic advances in comparison to other areas. This demonstrated pragmatic concern with basic economic development issues diminishes the danger of military confrontation and increases the prospects for arms limitation. National rivalries will of course continue and ethnic nationalism will persist in acquiring militant forms. A decrease, if not the total elimination, of the great-Power presence in the region is crucial and would reduce tensions and create conditions of peace and security. That has yet to take place as a logical sequel to improving East-West relations. Trade wars are more likely to be fought in the forums of the General Agreement on Tariffs and Trade (GATT) and the United Nations Conference on Trade and Development (UNCTAD)

than by arms. As the components of power change slowly but surely from the politico-military to the economic we are going to see a multipolar world of a different kind. Certainly, large-scale wars between nations will become less likely. The micro-chip of modern technology may prove more potent than the Kalashnikov. That in itself will be a force for demilitarization but it can come in the Asia-Pacific region only with the great Powers taking the lead.

Evolving a Security Consensus

The pattern of regional co-operation for peace and development is unique for each region. No model can be entirely replicated elsewhere. However, lessons can be learned from the successes and failures of others. The experience of Helsinki and Stockholm must therefore be examined objectively. With so much cultural diversity and other disparities amongst the countries of the region, we are a long way from talking of a common Asia-Pacific home. While the danger of large-scale conflict may have been averted with the improved international atmosphere, the pressures for disarmament in the Asia-Pacific region are still not as strong as they should be. On 16 January 1990, a three-week colloquium began in Vienna among the chiefs of staff of European countries on military doctrines. It is perhaps time for a similar dialogue among the nations of the Asia-Pacific region as a first step towards an understanding of one another's legitimate interests and aspirations. It is only after a regional consensus is reached, accommodating the national interests of all, that genuine arms limitation and disarmament measures can be implemented. Regional security leading to disarmament is best and more durably achieved through consensus arrangements than through the emergence of regional Powers as gendarmes. Some of the regional organizations in the Asia-Pacific region—ASEAN, the South Asian Association for Regional Co-operation and the South Pacific

Forum—have the potential of developing such a consensus following further advances towards their present goals for economic co-operation.

A further prospect for arms limitations and disarmament in the Asia-Pacific region lies in the concept of "non-offensive defence", also known as "non-provocative defence" and "alternative defence". Developed in the European context, the conceptual objective is to achieve conventional stability by maximizing the defensive orientation of forces, thus reducing the danger of surprise attack and achieving security at lower overall levels of armaments. It is claimed that it is possible to achieve structural incapacity to attack, thereby reducing threat perceptions and enhancing confidence. At a recent symposium, UNIDIR invited a group of scholars and diplomats to explore the applicability of "non-offensive defence" to other regions as a preliminary attempt to broaden the discussion of this concept. While the primacy of political factors cannot be denied, the influence of military doctrines that assure equal national security is also important, and further exploration of new concepts is urgent.

Conclusion

The Secretary-General of the United Nations, Javier Pérez de Cuéllar, in his annual report to the General Assembly for 1989, said:

> "There is a ubiquitous desire to turn over a new leaf, to try innovative approaches for the solution of old problems. In diverse regions, there is weariness with wars and there is recognition of their futility. Nor do the postures of hostile competition have the appeal to public opinion that they unfortunately exerted not too long ago. Instead, it is the combat against the causes of conflict, the struggle against economic inequities and social evils and the degradation of the environment that must evoke all the courage and determination of battle."[13]

We must continue to explore new concepts leading to peace and disarmament. We have to break out of the old moulds of thinking, abandoning also the emotional baggage acquired through past historical experiences, if we are to create a better world to usher in the twenty-first century. More arms have not brought more security, and war is no longer the inevitable extension of politics but rather the failure of civilized political behaviour, unthinkable in a nuclear age.

Notes

1 See UNIDIR *Newsletter* No. 4 (December 1988), "Opinion column", "Security in the Asia-Pacific Region".

2 Stockholm International Peace Research Institute, *World Armaments and Disarmament: SIPRI Yearbook 1989* (SIPRI, Oxford University Press, 1989), p. 156.

3 International Institute for Strategic Studies, *The Military Balance 1987-1988* (London, IISS).

4 Paul Kennedy, *The Rise and Fall of the Great Powers* (New York, Random House, 1987).

5 It was subsequently announced that the United States military budget for 1991 envisaged the closing of some United States bases, including some in Asia and the Pacific.

6 Stockholm International Peace Research Institute, *op. cit.*, p. 34.

7 Leonard Spector, *The Undeclared Bomb* (Cambridge, Mass., Ballinger, 1988), p. 71.

8 *Ibid.*, pp. 75-79.

9 *Ibid.*, p. 80. The relevant passage reads: "By mid-1988, although neither India nor Pakistan had deployed nuclear weapons or announced that it possessed them, a system of undeclared nuclear deterrence based on the recognized capabilities of both States, was emerging on the Indian Sub-Continent."

10 Stockholm International Peace Research Institute, *op. cit.*, p. 210.

11 For a detailed discussion of such measures, see Richard Fieldhouse, ed., *Security at Sea, Naval Forces and Arms Control* (SIPRI, Oxford University Press, 1990), especially pp. 203-237.

12 Francis Fukuyama, "Are we at the end of history?" *Fortune*, 15 January 1990.

13 Report of the Secretary-General on the work of the Organization (*Official Records of the General Assembly, Forty-fourth Session, Supplement No. 1*) (A/44/1), part XV.

Confidence- and Security-Building Measures and Military Security

Andrew Mack

Introduction

This paper examines a number of problems which the negotiation and implementation of confidence-building measure (CBM) régimes may pose for military planners. It is written in the conviction that CBMs can play a vitally important role in enhancing military security outside the European framework. But it stresses that for CBM régimes to be negotiated and implemented effectively, security planners need to be forewarned about the problems which may arise in the process.

A "confidence-building measure" is, as James Macintosh has pointed out, a concept notable for the imprecision of various attempts to define it.[1] There is little consensus about what may be included under the general rubric of confidence-building measures or how they are to be distinguished from other arms control measures.[2] There is also confusion over the critically important question of what CBMs are intended to achieve—and whose confidence is supposed to be built by CBM régimes.[3]

Are CBMs intended to engender confidence on one side about the benign intentions of the other? Or vice versa?

Andrew Mack is Professor at the Peace Research Centre, Australian National University, Canberra, Australia.

Or both? And even if the nature and goals of CBMs can be agreed upon, this still leaves unresolved the almost wholly unresearched issue of what are the psychological mechanisms by which confidence may be built.

Are CBMs Relevant to the Problem of Coping with Unprovoked Aggression?

It is probably true to say that much of the support for CBMs within the Western arms control community has been predicated on the assumption that the major risk of armed conflict between the rival alliances arose, not from unprovoked aggression, but from a crisis escalating out of control and propelling adversaries into an unintended confrontation. CBMs, in other words, were seen as most relevant to the goal of minimizing the dangers of inadvertent war.

But if premeditated and unprovoked aggression, rather than crisis instability, is assumed to constitute the central security problem, the strategic utility of CBMs may be questioned. Attempts by our side to reassure an adversary bent on aggression about our intentions will be, at best, futile and at worst amount to appeasement. The confidence which the British believed had been built at Munich between Neville Chamberlain and Adolf Hitler turned out to be a sad delusion.

Does this mean that CBMs are of no use in the face of potentially aggressive adversaries? Not necessarily. At the Conference on Confidence- and Security-building Measures and Disarmament in Europe (CDE) in Stockholm, the then United States Secretary of State, George Shultz, defined the United States objective at the talks as the achievement of a CBM régime which would "reduce the danger of surprise attack, miscalculation, or misunderstanding".[4]

In a similar vein, Jonathan Alford has defined CBMs as "measures that tend to make military intentions obvious".[5] CBMs thus defined are clearly highly relevant to military security. Indeed the Alford definition is synonymous

with good intelligence and good intelligence would be a great value to any nation facing an adversary bent on aggression. In third world States which lack the sophisticated surveillance and intelligence capabilities of the super-Powers, information CBMs, such as those advocated by Shultz and Alford, may be a particularly useful hedge against surprise attack.

What then does it mean to say that measures designed to clarify military intentions and contribute to decreasing the risk of surprise attack are confidence-building measures? The short answer is that while they may not build mutual confidence, they may well create confidence on our side about our ability to detect aggressive preparations by adversaries early enough to make an appropriate defensive response. From a purely military point of view this is highly desirable.

The strong emphasis on the military utility of CBMs which was stressed by the NATO side at the Stockholm negotiations is partly responsible for the increasing adoption of the term "confidence- and *security*-building measures" (CSBMs), which will be used in the rest of this paper.

It is of course true that a State bent on aggression might well refuse to negotiate a CBM régime which minimized the chances of its aggression succeeding. But the refusal to negotiate should in itself have a useful cautionary effect.

If the above argument is accepted, it would seem to follow that the most limited CSBMs are those which increase a nation's own confidence in its abilities to detect an adversary's preparations for acts of aggression. More extensive CSBMs (i.e. those where confidence may be increased on both sides) are relevant where neither side in fact harbours aggressive intentions against the other, but where the relationship between the two is nevertheless characterized by a considerable degree of suspicion and hostility. Here the confidence-building process—a process which seeks to reduce hostility and fear—should be mutual.

In the sections which follow I examine a number of the problems which may be encountered in negotiating and implementing CSBMs and consider a number of the more common military objections to CSBM régimes.

The Problem of Surprise Attack

A central North Atlantic Treaty Organization (NATO) objective at the Stockholm Conference was to negotiate CSBMs which would reduce the risk of surprise attack. NATO's concern was understandable. Western analysts believed that Soviet strategy for the Central Front in Europe sought to exploit the advantage of surprise in blitzkrieg-type offensive thrusts against NATO forces. CSBMs which made Moscow's strategic task more difficult were clearly in NATO's interest. But herein lay a problem. In so far as surprise attack is seen by one side (or indeed both) as having clear military utility when war is perceived to be inevitable, what security interest does the side contemplating a surprise attack have in negotiating CSBMs designed to undercut this tactic?

Anti-surprise-attack CSBMs would certainly have had no appeal for Israel in June 1967. Israel's extraordinary success in the Six-Day War owed an enormous amount to the pre-emptive surprise attack launched by the Israeli Defence Force which destroyed many of the combat aircraft of Syria and Egypt on the ground. Similarly, the strong emphasis in the United States Navy's maritime strategy on the need for initiative and surprise may be a determinate factor in the Navy's strong resistance to naval CSBMs which might reduce the element of surprise.

The problem of surprise attack is related to the more general problems raised by offensive strategies and force structures which are addressed in the conclusion.

CSBMs and Deterrence

Can CSBMs undermine deterrence and in so doing increase the risk of aggression? The reasons the United States Navy advances for its opposition to a range of CSBM constraint measures illustrate how particular security concerns may lead to the rejection of CSBMs. The Navy's argument runs roughly as follows: Constraints on exercises (as proposed by the Soviets on a number of occasions) will prevent the Navy from practising its strategy effectively. In so far as this is true the Navy's war-fighting capability will decline, which will in turn undermine deterrence and thus increase the risk of aggression. CSBMs, in other words, may actually increase the risk of war.

When it is pointed out that the CSBM constraints apply to both sides, the Navy is quick to respond that its activities will be affected far more than those of the Soviet side, since United States ships are forward deployed, while the Soviet Navy is more defensively oriented and its operating tempo has slowed considerably over the past four years.

The Problem of False Confidence

Pressures to achieve negotiated arms control agreements are likely to be most intense when there is widespread public enthusiasm for such agreements, when a perceived reluctance to reach an agreement could be politically costly to the Government conducting the negotiations, and when the adversary is making apparently reasonable proposals. Under such circumstances agreements may be made for essentially domestic political reasons, which could have adverse long-term security consequences.

Agreements which create the illusion of progress where there is no substance may have a dangerously lulling effect on public consciousness—this may be a particular problem with CSBM régimes. False confidence may lead to a dangerous decline in vigilance.[6] While it is true that CSBMs

are intended, among other things, to reduce the risks of surprise attack, they will only succeed in doing this if the warnings that are generated are heeded. If Governments and publics have been lulled into a sense of false confidence, there is a strong possibility that these warnings will be ignored or misinterpreted.

Quite apart from military objections to CSBMs in principle, there are a range of problems which may arise in the negotiating process itself.

Security Mindsets

The ways in which adversaries perceive security may be very different and the differences may in themselves generate suspicion during the negotiating process. In the Stockholm negotiations, for example, the Soviets initially placed great emphasis on "declaratory" or "political" CSBMs. Such CSBMs, Barry Blechman has argued, could:

> " . . . signal the desire of those States party to the agreement to adopt a co-operative posture in regional affairs. This type of declaration could be a necessary precedent to further arms control negotiations. It could be used to clear the air of past grievances and to signal the beginning of new relationships. A further and very important purpose would be to demonstrate the political commitment of the signatory States to sustain the policies required to bring about stabilization in the region".[7]

However, the United States has traditionally rejected the Soviet emphasis on such political/legal CBMs, arguing that they are largely inspired by propagandistic motives. Soviet statements of peaceful intent were disbelieved because of the very American suspicions that they were ostensibly intended to dispel.

The Soviet Union, on the other hand, has tended to argue that the gravest risks of war are to be found in political

relationships, and their negotiating style has reflected these concerns. From the Soviet perspective, the United States approach was unhelpful, since, in focusing on narrow military/technical CSBMs, it dealt with the symptoms of the super-Power conflict and ignored its fundamental causes. The Soviets have also argued that crisis-avoidance is a more prudent security goal than crisis-stability. They further suggest that crisis-avoidance is best approached via political CSBMs rather than the military/technical CSBMs favoured by NATO. Thus Moscow has repeatedly stressed the importance of declaratory agreements such as the 1972 basic principles Agreement, stressing the need to avoid situations likely to lead to increased tensions, and the 1973 Agreement on the Prevention of Nuclear War.[8]

The Soviets have argued that the military/technical CSBMs which NATO promoted were largely irrelevant to the task of preventing crises from arising in the first place. NATO, on the other hand, has wanted ". . . deeds, not words or sweeping pledges, to be the basis of confidence- and security-building efforts in Europe".[9]

On the Korean peninsula quite different security mindsets have also prevented progress towards creating even the most modest CSBM régime. For the Democratic People's Republic of Korea (North Korea), the central security goal is reunification of the two Koreas and the central negotiating task is to construct a blueprint for reaching that goal. The Republic of Korea (South Korea) agrees that reunification is an ultimate goal but believes that a minimal degree of trust must be created between the two sides before negotiations on reunification—or the form that it will take—can commence. Modest CSBMs are seen as a means towards the latter end. However, scholars from the North have argued that the CSBMs advocated by the South would have the effect of reinforcing the *status quo* of a divided Korea and would thus be antithetical to the eventual goal of reunification. The

Republic of Korea sees the Democratic People's Republic of Korea's reluctance to countenance even the most modest CSBMs as evidence of Pyongyang's bad faith.

In other conflict situations adversaries may have quite different but equally incompatible security mindsets which may create barriers to progress. But such problems will be alleviated if they are recognized and addressed at the outset. Discussions on military doctrine, with the various parties seeking an empathetic understanding of each other's security perspective, could be particularly helpful in this respect.

The Problem of CSBMs Which Impact Asymmetrically

Another major difficulty which may be encountered in negotiating CSBMs derives from the fact that the measures proposed often impact very differently on the parties which are subject to them. The Stockholm Conference negotiating record again provides a number of usefully cautionary examples.

1 Transparency and information CSBMs

In January 1984, NATO presented six measures for negotiation at the Stockholm Conference. These measures included exchanges of military data, advance notification of military activities, observation of military activities, verification of military activities and enhanced communication procedures. Richard Darilek has noted that in this list of CSBMs, "the quest for information predominates, especially information provided by the other side".[10] The Soviets saw this stress on information-gathering as little more than legalized espionage—and complained that NATO's proposals meant that the United States would be able to spy on much of the USSR, while United States territory was not subject to transparency inspections by the East.

Moscow's concern arose because, even though trans-

parency CSBMs might be applied equally to all sides, they would in practice provide the West with more information about the closed and traditionally secretive East than vice versa. Moscow could glean detailed information on military developments in the United States from such public domain sources as Congressional Hearings, the National Technical Information Service, and even *The New York Times*. There were no comparable sources of public information in the Soviet public domain accessible to the United States and its allies. The key point here is that asymmetry in existing access to information meant that transparency CSBMs, when implemented, would confer a disproportionate advantage on one side.

2 Constraint measures

Among the constraint CSBMs proposed by the East at the Stockholm negotiations were certain prohibitions on the size of exercises. The standard United States response to all constraint proposals was that "it was difficult to conceive of measures that did not impact disproportionately on NATO".[11] Indeed the Soviet proposal for a ceiling of 40,000 troops on manoeuvres would have had the effect of constraining NATO far more than the Warsaw Treaty States, which traditionally exercised with smaller troop numbers than NATO.

A number of the USSR's naval arms control proposals would also impact far more on the forward-deployed United States Navy than on the more defensively deployed Soviet Navy—this has been one of the reasons advanced by the United States Navy for its persistent rejection of proposals for naval arms control.

The fact that some constraint measures may impact more on one side than another is, however, not a good reason for rejecting constraint measures *per se*. It does suggest that if negotiations are being conducted in good faith (they may

be engaged in for propagandistic reasons), then great care should be taken to try to avoid advocacy of particular CSBMs which, even though they might be applied symmetrically, would impact asymmetrically—i.e., would disadvantage one side more than the other.

The foregoing underlines the need for extreme care when proposing that CSBMs which may have worked well in one theatre be applied to a quite different theatre in which their impact may be asymmetrical.

Goals of Negotiation

Negotiating teams are comprised of individuals who very frequently represent different bureaucratic interests as well as their own individual views as to what the real goals of the negotiation process should be. Thus for every committed arms controller on the team, there may be one or more others who see the negotiation process as simply another arena in which the adversarial struggle should be played out. From the latter perspective, the name of the game is to gain a military or political advantage over the other side, not the achievement of greater common security. As Stephen Larrabee and Allen Lynch observed of the Stockholm process:

> "Since each side tends to put forward those CBMs that constrain the behaviour of the other, while resisting those that would inhibit its own, progress in negotiating CBMs has been slow."[12]

The Negotiation Process

Even where there is a genuine will to achieve an agreement, its achievement may be frustrated by failures in the negotiation process. It is somewhat ironic that, while arms control negotiating teams usually include military, legal, technical, political and arms control experts, they almost never include experts in the process of negotiation *per se*. It is sometimes the case that negotiations fail because there is

simply no basis for a satisfactory resolution of the issues being addressed. But at other times they fail not because the dispute was inherently insoluble, but because of avoidable failures in the negotiation process itself. The case for negotiating teams to include experts in the process of negotiation—or at least for providing negotiators with training in negotiating skills—would appear to be compelling. This is particularly true with respect to CSBMs, where the issues being discussed may well be more sensitive than is the case with force-reduction negotiations. Some interesting work in this area has already been undertaken by Roger Fisher and William Ury of the Harvard Negotiation Project.

Where negotiations reach an impasse there may be a case for mediation or other forms of intervention by third parties in whom both sides have confidence. For example, North and South Korean arms control experts have each noted the similarity of the other's proposals to create a genuine demilitarized zone along the border between their two countries. One scholar from the North noted, however, that the South invariably rejected the North's proposals and vice versa—notwithstanding their similarity. Had the proposals been put forward by a third party, he suggested, it would have been much easier for each side to accept.

Implementation Problems

Even when CSBM agreements have been successfully negotiated, their practical implementation may be a process which actually undermines confidence and is fraught with frustration. Colonel Jim E. Hinds, a retired United States army officer who had been involved in observing a number of Soviet military activities, clearly found the experience a thoroughly negative one. Commenting on his experiences as an observer under the terms of the 1975 Helsinki Final Act, Hinds notes:

> "Observers were only permitted to witness demonstrations, not manoeuvres. They were not permitted to provide their own equipment, not permitted freedom of movement, but were transported by Soviet hosts, and were given no opportunities freely to interview Soviet officers or soldiers."[13]

Such frustrations in monitoring Helsinki CBMs, which have been noted also by many other Western officials, often left observers confident only that they were being deceived. Hinds argues that:

> ". . . CBMs produce nothing positive when implemented negatively. Without positive implementation, CBMs can produce negative results, and perhaps themselves provide the spark to set off serious confrontations."[14]

Most of the problems which were associated with the Helsinki CBMs have been overcome in the Stockholm régime, but the difficulties with the Helsinki régime implementation offer a useful warning of possible implementation problems for States contemplating creating CSBM régimes in non-European theatres.

Conclusion

This list of problems may suggest a certain scepticism about the basic utility of CSBMs in regional conflicts. It is not intended to. Like any approach to enhancing security, that of CSBMs is complex and often difficult to implement. Recognizing that this is the case is a necessary antidote to any unrealistic expectations about the CSBM process.

It should also be recognized that the "arms control paradox", namely, that arms control is hardest to negotiate when most needed and easiest to negotiate when least needed, applies with particular force to CSBMs. There will undoubtedly be times when levels of hostility and suspicion between adversaries are simply too high for CSBM negotiations to

have any chance of succeeding. In such circumstances it is better to avoid negotiations at the official level completely. But even where official bilateral negotiations are impossible, so-called "track II diplomacy" involving unofficial meetings, possibly between scholars and former officials, may fulfil a useful role. Furthermore, detailed consideration of possible CSBM régimes within the security communities on each side may facilitate negotiations when hostility declines.

I noted earlier in the discussions on both surprise attack and deterrence that much of the military scepticism which exists about CSBMs derives from the fact that strategists frequently see military virtue in that which CSBMs (particularly of the constraint variety) attempt to control. CSBMs, it is argued, may undermine deterrence, preclude successful resort to pre-emptive attack and reveal essential military secrets.

Under certain circumstances it is possible to imagine examples where this might be true—though the history of CSBM negotiations suggests that the parties to them rarely compromise what they perceive as their essential security interests. But what is critical to stress here is that any approach to security has drawbacks. The fact that CSBM régimes under certain circumstances may pose certain risks is, in itself, no argument against seeking to achieve them. The critical question is whether, in creating a CSBM régime, the balance of risk is, or is not, outweighed by the balance of advantage. This is particularly pertinent when looking at the alternatives advocated by critics of CSBMs—alternatives which stress deterrence rather than reassurance, national security rather than common security, and pre-emption rather than withholding. Such alternatives are most frequently associated with offence-dominant force structures and strategies.

The argument for offensively-oriented strategies and force postures is that these enhance deterrence and offer a

more efficacious mode of war-fighting if deterrence nevertheless fails. Both of these assumptions are open to question.[15] But whatever their claimed advantages in the realm of war-fighting, there is no doubt that offensive strategies undermine policies of both crisis-avoidance and crisis-control. Because offensive forces can be used for aggression as well as in response to aggression, their very existence is bound to generate suspicion in the minds of prudent defence planners on the other side. Offensive force postures do not, of course, cause conflicts, but they may well exacerbate them, while at the same time providing rationales for arms races. Because they place considerable emphasis on pre-emption and on escalation once the threshold to war has been crossed, offensive strategies are also inimical to crisis-stability. In seeking to maximize deterrence against unprovoked aggression, they may unwittingly increase the risk of inadvertent war. Offensive strategies, in other words, are quite antithetical to confidence-building.

Defensive strategies are designed to eliminate incentives for pre-emption in crises and escalation in war by abjuring the capability seriously to threaten an adversary, while retaining the capability for effective defence. Most constraint CSBMs may be seen as contributions to the creation of defensive force postures. Indeed, defensive force postures and strategies may in one sense be seen as the ultimate form of constraint CSBMs. In Europe, however, negotiations to reduce capabilities for large-scale offensive operations are being conducted at a separate venue (the Negotiation on Conventional Armed Forces in Europe (CFE)) from the ongoing talks on CSBMs in Vienna.

In considering whether or not the CSBM/defensive strategy path to security may be as useful for regions outside Europe as it clearly has been for those within, it will be necessary to bear in mind not only the particular problems which negotiating and implementing the CSBMs will in-

volve, but also the broader question of what is the most probable cause of war in the region in question.

The evidence suggests that wars which arise out of crises getting out of hand and escalating into unwanted confrontations are more likely to occur than wars in which unprovoked aggression provides the trigger. Sarajevo and World War I may be a more relevant lesson of history than Hitler, Munich and World War II.

In so far as this is true, then the CSBM/defensive strategy route to security will have much to recommend it.

Notes

1 James Macintosh, "Confidence-building measures: A conceptual exploration", in R. B. Byers, F. Stephen Larrabee and Allen Lynch, eds., *Confidence-Building Measures and International Security* (New York, Institute for East-West Security Studies, 1987).

2 Some analysts would wish to distinguish CBMs from arms control.

3 See John Borawski, "The World of CBMs", in J. Borawski, ed., *Avoiding War in the Nuclear Age: Confidence-Building Measures for Crisis Stability* (Boulder, Colorado, Westview Press, 1986), p. 9.

4 Cited in John Borawksi, *From the Atlantic to the Urals: Negotiating Arms Control at the Stockholm Conference* (London, Pergamon-Brasseys, 1988), p. 36.

5 Jonathan Alford, "The usefulness and limitations of CBMs", in W. Epstein and B. T. Feld, eds., *New Directions in Disarmament* (New York, Praeger, 1981), p. 134.

6 For an extended discussion of this point, see Jim E. Hinds, "The limits of confidence" in J. Borawski, ed., *Avoiding War in the Nuclear Age*.

7 Barry M. Blechman, "Confidence-building measures in the North Pacific", in Andrew Mack and Paul Keal, eds., *Security and Arms Control in the North Pacific* (Sydney, Allen and Unwin, 1988), p. 211.

8 For an excellent exposition of this argument, see Bruce Allyn, "Soviet views of CBMs" in Borawski, ed., *Avoiding War in the Nuclear Age*.

9 Richard E. Darilek, "The Stockholm CDE negotiations", in Borawksi, ed., *Avoiding War in the Nuclear Age*, p. 94. The history of the Stockholm negotiating process was one in which the East accepted to an ever-increasing degree the NATO conception of CSBMs. On the difference between United States and Soviet ap-

proaches to CBMs see F. Stephen Larrabee and Allen Lynch, *Confidence-Building Measures and US-Soviet Relations* (New York, Institute for East-West Security Studies, 1986), pp. 16-17.

10 Darilek, "The Stockholm CDE negotiations", p. 91.

11 Borawski, *From the Atlantic to the Urals*, p. 73.

12 Larrabee and Lynch, *Confidence-Building Measures and US-Soviet Relations*, p. 17.

13 Hinds, "The limits of confidence", p. 186.

14 *Ibid.*, p. 187. One may imagine that in a crisis an act such as the killing, in East Germany, of United States Army Major Arthur Nicholson, who was performing his duties within the provisions of the 1947 CBM agreement, could easily provide the spark for a violent confrontation.

15 For an extended discussion of this question, see Andrew Mack, "The European debate", in Desmond Ball and Cathy Downes, eds., *Security and Defence: Pacific and Global Perspectives* (Sydney, Allen and Unwin, 1990).

Conflict Resolution, Crisis Prevention and Management, and Confidence-Building among African States

General Overview of African Contemporary Political, Military and Economic Affairs and Their Relationship to Peace, Security, Disarmament and Confidence-Building among African States

Olu Adeniji

The international system into which African States emerged in the late 1950s was characterized by uncertainties provoked by East-West ideological rivalries and the accompanying arms race. The Second World War had hardly ended before the united will for a stable world order based on the concept of collective security disintegrated. Instead, a system of alliances—the most notable of which are NATO and the Warsaw Pact—came into being, led by the United States and the Soviet Union, which had emerged as the two super-Powers. The arms race on which the two Alliances relied

Olu Adeniji is Ambassador of Nigeria to France and a member of the Secretary-General's Advisory Board for Disarmament Matters.

The two articles on conflict resolution, crisis prevention and management, and confidence-building among African States are based on papers presented at the United Nations workshop on that topic held at Arusha, Tanzania, 5-16 March 1990.

for their security and for the expansion of their influence has since become the dominant factor in international relations. The United Nations, which ought to have provided an environment in which emergent African States could develop in peace, was itself caught up in an increasingly acrimonious world dominated by the conflicting interests of the super-Powers. It was in no position to insulate new African States from the East/West ideological battle theatre in which the one sought to dislodge the dominant interest which the other, notwithstanding the granting of independence, sought desperately to preserve.

An early signal of the East/West competition and the prevailing concept of security based on military power was the creation by the new African States of a defence apparatus. The establishment of armed forces became as much a symbol of sovereignty as a national flag. The basic rationale for the military apparatus was the defence of the sovereignty and territorial integrity of the new States. Other factors, some inherent in the colonial system from which the continent was then emerging, provided added stimulus for the acquisition of arms. Lack of internal cohesion arising from the arbitrary grouping of hitherto distinct peoples within national boundaries provoked crises in several of the new countries. This phenomenon was complicated by the irredentist movement of those who campaigned to join their relatives across national boundaries. Boundary disputes between States arising from ill-defined territories developed into armed conflicts. In parallel with these intra-State or inter-State crises was the continued liberation struggle against those colonial Powers, such as Portugal, which insisted on perpetuating their rule, and against the minority régimes in Rhodesia and the *apartheid* régime in South Africa.

The contemporary political and military situation in Africa must therefore be seen against the background of the legacy of colonialism, as it concerns internal cohesion within

States, inter-State territorial and boundary disputes, the left-over struggle for liberation in southern Africa and the threat by the *apartheid* régime, and the post-colonial ideological scramble for the continent. To these must be added the effects of arms acquisition, including the role of the military in politics and the unfulfilled economic expectations of the post-independence era leading to the current critical economic crisis on the continent.

Internal Crisis and Border Problems

The legacy of the partition of Africa by the colonial Powers through the grouping together of diverse people into administratively convenient entities may be said to be perhaps the deepest root cause of the problems that earned Africa the reputation of a crisis-ridden continent. It manifested itself partly in inter-ethnic conflicts within almost every country, conflicts in which each group sought control of power and the accompanying access to the national wealth. Added to this was the arbitrary and the imprecise manner of the partition, which meant that, on the attainment of independence, most countries were uncertain of their boundaries. Lack of expertise on the part of the new countries in border demarcation and in conflict resolution was combined with a jealously guarded concept of territorial integrity which admitted of no concession, for whatever reason, to yield any part of the national territory. It was further compounded by rival ideological tendencies and the irredentist quest of peoples who sought, or were instigated to seek, to join members of their ethnic group across borders.

The debate as to whether to preserve the colonial boundaries in the interest of the integrity of the newly emerging States or to make adjustments in the interest of uniting people had raged in Africa even before the formal granting of independence. Fear of the chaos likely to follow claims for border adjustments must have been the determining factor

in the decision of the Organization of African Unity (OAU) to maintain the *status quo*. In article 3, paragraph 3, of the OAU Charter, adopted in May 1963, member States solemnly declared their adherence to the principle of respect for the sovereignty and territorial integrity of each member State and for its inalienable right to independent existence. The implied adherence to the doctrine of *uti possidetis juris* (as you hold possession by right) was explicitly clarified the following year in a resolution adopted at the OAU summit meeting held in Cairo in July 1964, associating territorial integrity with maintenance of the *status quo* of colonial boundaries. In the resolution, the Assembly of Heads of State and Government solemnly declared that all member States pledged themselves to respect the frontiers existing on their achievement of national independence.

Notwithstanding this ground rule, the early years of African independence witnessed a flurry of territorial disputes and border conflicts which the conflict management provisions of the OAU Charter were inadequate to deal with. It should be borne in mind that no provision whatsoever was made for military action of any kind in the form either of peace-keeping or of peace enforcement. Rather, the OAU Charter envisaged, in its article 3, paragraph 4, the peaceful settlement of disputes through third-party assistance of a quasi-juridical nature, involving mediation, conciliation and arbitration. However, the Commission on Mediation, Conciliation and Arbitration which was set up was hardly used. Rather, African States preferred the improvised use of good offices of *ad hoc* committees of heads of State set up for specific border cases. The situation today is that although internal tensions have not totally ceased nor have borders been clearly demarcated, all countries still maintain the borders inherited at the time of independence. The question, therefore, is whether all countries and peoples should not fully accept that situation and direct greater

efforts towards forging nation States out of the state of nations.

Politically this would require two steps. First, a greater effort will have to be made to achieve internal cohesion. Thirty years is a long enough period to turn the mistakes of the partitioners of Africa into a source of strength. Otherwise, the security of the State will always be in jeopardy, leading to a large diversion of resources into the acquisition of arms and a tendency to use these for internal security. Large-scale human rights violations, known to have bedevilled relations between Governments and their internal opponents, can only exacerbate tensions, particularly in the present period of universal awareness of the need to protect fundamental human rights. A second step required is the development of a credible system of crisis management and conflict resolution at both the continental and the subregional levels. This will ensure that inter-State disputes can be tackled before they degenerate into armed conflict and that, if need be, a continental peace-keeping group can be interposed.

Southern Africa and the Left-Over War of Liberation

The left-over struggle for liberation at present concentrated in southern Africa is epitomized by the *apartheid* régime of South Africa. The policy of that régime challenges the whole course of development in post-Second World War Africa by its determination to perpetuate a racialist and colonialist policy. Happily, its imperialist hold on Namibia is already at an end with the triumph of the liberation struggle and the unrelenting pressure of Africa and the international community.

However, the legacy of the militarization of southern Africa resulting from the *apartheid* policy of South Africa still remains. Indeed *apartheid* poses the greatest obstacle to an African search for a non-military system of security.

The record of the South African régime has been one that encourages violence and militarism. Its system of internal repression has provoked equally violent resistance from the oppressed black people of South Africa generally and from the liberation movements that have been compelled to take up arms. Since the apparatus for the suppression of the black majority has not yet been touched by the current De Klerk Government, it is too early to expect the oppressed to let down their guard. In its bid to reverse the course of the wind of change that swept colonial régimes out of the continent, and to install a *cordon sanitaire* round itself, South Africa gave support to internal subversion and openly committed aggression against its neighbours. To support its abhorrent system and its aggressive policies, it has built a military capability far superior to that of any other country in Africa south of the Sahara.

South Africa's possession of a nuclear-weapon capability has further compounded the dilemma of Africa, whose clear preference is for non-proliferation of nuclear weapons and a nuclear-weapon-free African continent. It should be recalled that as early as 1964, in reaction to French nuclear tests in the Sahara, African Heads of State and Government adopted in Cairo the Declaration on the Denuclearization of Africa. However, the development of South Africa's nuclear-weapon capability has impeded the elaboration of a legally binding instrument along the lines of the Treaty of Tlatelolco, which established a nuclear-weapon-free zone in Latin America. Rather, the fear of South African nuclear blackmail generated an African debate on the question of developing a nuclear-weapon capability in some other African countries. Many African intellectuals and some politicians made spirited pleas in support of this idea. The present position is of course that no member State of the Organization of African Unity has a nuclear-weapon capability. That is a situation I do not regret since I have always believed that a regional

nuclear arms race cannot be in the overall interest of African security. What is regrettable, however, is that Africa has made no headway in the development of the peaceful uses of nuclear energy.

Africa and Armaments

In the area of conventional weapons, the evolution of events in Africa and the universal importance attached to militarization in inter-State relations have resulted in an African share of the arms race which, while small in global terms, is nevertheless substantial in terms of the share of available resources which it consumes. The intensification of the arms race of the super-Powers and their Alliances, coupled with their ideological rivalries and the need to spread their influence globally, have made arms supply a crucial instrument of their foreign policy. Mwalimu Nyerere put it succinctly when he wrote:

> "The selling of arms is something which a country does when it wants to support and strengthen the régime or group to whom the sale is made. Whatever restrictions are placed on that sale, the sale of any arms is a declaration of support—an implied alliance of a kind."

The pattern of arms supply in countries such as Angola, Mozambique, Ethiopia and the Sudan shows the ideological political preferences of the suppliers and the recipients.

The internal factors that stimulated the acquisition of arms by African countries are varied. With independence, the installation of a proper army was considered one of the essential attributes of sovereignty. It was to be more than just symbolic as various factors led to their rapid expansion. The fragility of the concept of the nation-State was soon apparent in many parts of Africa and thus an awareness emerged of the practical utility of an army to quell internal rebellion and in several cases to prosecute the civil wars which dogged several African countries. At the same time,

border conflicts and territorial claims necessitated arms acquisition, as did the fear of aggression or subversion based on ideological differences. For countries in southern Africa in particular, the requirements of the liberation struggle and the dangerous threat arising from the aggression and destabilization of the *apartheid* régime of South Africa made arms acquisition imperative. Beyond the compelling reasons of national security, however, African arms acquisition was also influenced by the modernization campaign, which enabled many arms-producing countries to benefit from the recycling of petro-dollars.

Far beyond the insignificant military expenditure of Africa in the early 1960s, the amount doubled every five years from the middle 1960s until it levelled off in the closing years of the 1970s. It was to decline sharply with the beginning of the economic crisis. In terms of percentage of total world military expenditure, Africa's share does not represent a large amount—only 1.5 per cent globally and 6.5 per cent of the expenditure of the third world in 1978, the median year. However, these statistics do not convey the whole picture. The percentage of Africa's share of foreign arms purchases was particularly high since the continent produced hardly any weapons. Whereas in 1969 Africa accounted for less than 3 per cent of third world arms purchases, by 1978 the continent accounted for 25 per cent. Arms import as a percentage of total African imports rose from 1.3 per cent in 1969 to 9.3 per cent in 1978.

The weakness of African economies makes the burden of military expenditure particularly heavy. Very little of such expenditure feeds back to stimulate the undeveloped African economy. Even where, as is often the case, the personnel costs of the armed forces are substantial, these tend to promote a demand for foreign goods and thus constitute a further drain on foreign exchange. There has been a decline in military expenditure since 1980—a decline averaging 9 per cent

a year even in the oil-rich African countries, including Algeria, the Libyan Arab Jamahiriya and Nigeria. This decline has been due mainly to the drop in revenue from oil and the general economic crisis. When it is also observed that the peak period of military expenditures coincided with the boom years, conclusions can be drawn as to the military necessity as distinct from the political or the modernization syndrome which provoked the heavy outlay of those years. While military expenditure cannot be held wholly responsible for current African indebtedness—estimated at $250 billion—it is noteworthy that the arms purchase component is in some cases about 15 to 20 per cent.

In view of the unproductive nature of arms purchase, the continent has derived no returns from this vast outlay. Unlike the situation in other developing parts of the world, in Asia and Latin America, not even the fall-out of the acquisition of arms technology has rubbed off on Africa. Apart from *apartheid* South Africa, no African country south of the Sahara has managed to develop an arms industry. Africa has not been able to profit from the indigenous production of arms, which would not only have saved foreign exchange and obviated the present total dependence but, in a period of falling commodity prices, might have been exported for foreign exchange. Let us not forget that those developing countries that have become exporters of arms to Africa began the process of developing their capacity only within the past twenty-five years.

The real effect of high military spending on the economies of the developed countries is now being seen with the evolution of events in Europe. Even the super-Powers, it is now clear, have supported their ever-escalating military expenditure at tremendous economic and social costs. The widespread shortages of consumer goods and housing in the Soviet Union, the huge budget deficit and the pauperization of the lower classes in the United States are clear examples

of the opportunity costs of unrestrained military expenditure. It is now clear that economic considerations play an important part in the evolution of the policies of *glasnost*, which has brought super-Power relations to the highest point of détente since the cold war began. The hope generated by the expected peace dividend is a justification of the long-standing proposition of a close interrelationship between disarmament and development.

The economic and social consequences of arms acquisition are even more dramatically demonstrated in the developing countries. Very often, arms acquisitions by third world countries in the interest of security are made at the apparent cost of primary or basic needs in the area of social and economic well-being. Given the fragile economic base, which cannot sustain the expenditure on arms, and the equally fragile political base, which requires arms acquisition, self-preservation often dictated a choice for defence over development. The non-military threats to security are thus neglected, creating further cause for instability.

Economic Problems in Africa

The present economic situation in Africa is in part the result of this dilemma. The critical economic situation has the potential of destabilizing the socio-economic and political development of individual countries as well as relegating the continent as a whole to the mercy of a new colonial status, this time not by metropolitan imperial Powers but by multilateral financial institutions and the banks of developed countries. Africa's colonial status was itself a handicap in the race for development.

It should be noted that Africa shares with other developing regions the burden of an unjust and inequitable international economic order. Being almost totally dependent on the export of primary products, whether agricultural or mineral, Africa more than other parts of the third world

suffers most from the effect of the constant decline in the prices of these products. Earning less and less foreign exchange at a time of increasing import requirements, Africa has over the years lived beyond its means, with a consequent accumulation of debt.

Besides this factor, however, it is now generally acknowledged that instability, bad management and faulty planning have compounded the economic outlook. With the de-emphasis of agriculture and rapid urban migration many African countries which had been self-sufficient as regards food became major importers. Efforts at industrialization created assembly plants which, being dependent on massive importation of completely knocked down parts, could be productive only when there was an abundance of foreign exchange for the raw materials. Insufficient allocation of resources to education, health and other social welfare programmes has resulted in a continuing shortage of trained manpower in many relevant disciplines and in generally low productivity.

Mention should again be made of the expenditure of African countries on armaments, estimated at over 20 per cent of the continent's foreign debt. Besides the known outlay for acquiring weapons and its opportunity costs, the instability and violence created by the use of the acquired weapons to achieve military solutions to national or inter-State problems have had serious economic consequences. The large refugee population on the continent is a sad reminder of the mass displacement of peoples, whose potential productivity is lost to their countries of origin.

Effects of East-West Détente

The present evolution of East-West relations in Europe has become a major factor in the likely course of events in Africa, inasmuch as it has created propitious conditions for a new concept of security de-linked from the accumulation

of arms, and in favour of disarmament and greater East-West economic co-operation. The consequences for Africa will be both problematic and beneficial. East-West economic co-operation may portend some additional problems for Africa in the unequal competition which Eastern Europe may pose for Western capital. East-West disarmament, however, can be exploited to Africa's advantage. It should provide Africa with an example of security based on the lowest level of armament, on openness and mutual confidence and co-operation. An Africa that requires all its resources to bring itself into the mainstream of global development must learn a lesson from the European example. In addition, disarmament agreements between the super-Powers and their Alliances will offer tremendous savings in military expenditure. Such savings will be particularly significant as a result of a conventional weapons disarmament agreement in Europe, since 80 per cent of annual military expenditure, estimated at $US 1 trillion, is spent on conventional armaments.

Of Africa's $US 250 billion debt, it is estimated that about 20 per cent is related to arms credit. An immediate benefit to Africa of the peace dividend arising out of disarmament could be a proposal for the immediate cancellation of the arms-related debt of African countries. Besides, part of the new money to be released by disarmament should be made available for financing a comprehensive debt reduction plan, the goal of which should be the elimination of all the debts. For such proposals to be credible, there should be a clear indication of the choice on the part of African countries to eschew further arms acquisition and to avoid intra-African armed conflicts.

It should also be noted that East-West disarmament will greatly reduce international tensions still further and promote confidence, whereby the peaceful solution of problems will take priority. A shift in the global concept of security may reduce the interest engendered in African issues

by ideological one-upmanship. For that reason the fear has been expressed that African issues may be neglected in the aftermath of détente. In my view, there is as yet some uncertainty as to the strategic consequences of current events in Europe. While the Warsaw Pact is on the way to disintegration, the NATO alliance is as yet unmoved. What Africa should fear is a unipolar substitute for a bipolar post-1945 situation. What Africa should work for, in its own strategic and security interest, is a multipolar evolution in which Africa will be an effective player in global affairs.

Political Liberalization in Africa and Confidence-Building Measures

Africa's response therefore will have to proceed from a quick effort to set its house in order. The era of self-perpetuation in power and of the all-seeing and all-knowing monolithic political structure is fast disappearing. The effects of the events in Europe are not likely to be felt selectively by the people in Africa. Political liberalism and multiple choice are essential ingredients for mass participation in the development process. Nation State stability, like the stability of the family unit in each State, is essential for continental power. The disposition for peaceful resolution of intra-African problems should have the highest priority so as to avoid the inflaming of such problems by the dumping of arms that will become superfluous as a result of the evolution of events in Europe. Obviously this will mean that greater attention must be paid to the development of crisis management, conflict resolution and confidence-building measures in Africa. For Africa, crisis management and conflict resolution can truly be seen as an art of survival, especially in the light of the very marginal room the continent has for the use of its resources. This poses a great challenge to leaders on the continent. Peace-making and peace-keeping capacities must be developed through imaginative measures. This may in-

clude an informal coalition of a small representative group of African countries to assume leadership in the early consideration of potential areas of conflict as well as in the training and designation of troops from countries that can afford to do so in OAU peace-keeping operations.

Confidence-building measures which will reduce the necessity for military rivalry with the attendant financial implications should be given priority. Among such measures could be a declaration of acceptance of present borders and the renunciation of cross-border claims. Such reciprocal renunciation of claims would promote good-neighbourliness and reduce the necessity for massive arms acquisition. Resources could then be devoted largely to national economic and social programmes as well as to joint economic programmes.

Economic Integration in Africa

Africa's greatest challenge in the 1990s is likely to be in the area of economic integration. While lip-service has been paid to the value of such integration, no progress has been made in its achievement. Africa's pattern of trade is still oriented mainly towards Europe, the United States and Japan. This fragmentation of the African market has compounded the external dependence of the continent. If Africa, which constitutes only 10 per cent of the global population, has one third of the world's States, it follows that African States are, on the average, small and economically fragile.

In the words of Professor Adebayo Adedeji during a lecture on the subject "Africa in the Nineteen-Nineties: A Decade for Socio-Economic Recovery and Transformation or Another Lost Decade",

> "To ensure that we embark on a process of recovery, development and transformation in the 1990s, Africa needs urgently to pursue vigorously and relentlessly the path of regional and subregional economic integration."

In the face of European economic integration in 1992, the North American free trade area already in place between the United States and Canada and the development of co-operation in the Asian and Pacific Basin, Africa has once again, observed Professor Adedeji, fallen behind the other continents in achieving a breakthrough in the establishment of a regional market and economic integration. "Regionalism", he concluded, "and the inevitable concomitant development of the intensification of protectionism will make Africa a major loser in world trade." Can Africa afford to lose the race again in the 1990s?

Preventive Diplomacy among African States

Salim A. Salim

At a time when the rest of the world, especially Europe, is taking measures to ensure a future full of promise, a future not dependent on armaments but on co-operation, we in Africa also ought to be asking ourselves serious questions. Will Africa continue on its fractious path or shall we put a halt to it and set forth on the long road to peace, stability and co-operation on our continent? We may wish to imagine the Africa of the future—one in which, we hope, we shall not be talking about conflict resolution but rather about the consolidation of co-operation and the ensuring of lasting peace.

Both the Organization of African Unity (OAU) and the United Nations have a high stake in the stability of Africa: the countries of Africa constitute one third of the membership of the United Nations. It is this shared mission that has made the two organizations partners in the pursuit of peace. Together, they have promoted African unity, tackled the continent's economic problems, and in an effective way, through quiet diplomacy, contributed positively in efforts to resolve conflicts. I hope this partnership will be strengthened even more in the years ahead as we approach the twenty-first century.

Salim Ahmed Salim is Secretary-General of the Organization of African Unity.

Conflict resolution is, indeed, a complex subject. Both OAU and the United Nations have been involved in matters of conflict resolution for years. But OAU and the United Nations have tended to work more closely on preventive diplomacy than on conflict resolution. Indeed, the notion of crisis prevention derives logically from the concept of preventive diplomacy. The development of the concept has been linked to the development of the broader concept of collective security. This was envisaged as a system for the maintenance of international peace and security and as an alternative to the system of the balance of power in international politics.

The new system of collective security was envisaged as involving the establishment and operation of a complex scheme of national commitments and international mechanisms designed to prevent the use of force in international relations. The system was envisaged also as having the potential for credible threat and reliable promise of effective collective measures against aggressors, ranging from diplomatic boycott through economic pressure to military sanctions, in order to ensure and maintain the peace. This task of preventive diplomacy was assigned to both the United Nations and regional organizations such as the Organization of African Unity.

The conduct of peace-keeping operations has been the primary instrument by which the United Nations system has undertaken to exercise the function of preventive diplomacy. Considerable discussion has taken place on whether peace-keeping or peace-observation operations are authorized by the Charter of the United Nations. In the conceptual framework, however, peace-keeping and peace observations seem to have been legitimized by general principles of moral obligation within the concept of collective security.

While the maintenance of peace and security is intrinsic in the United Nations Charter, the Charter of OAU makes no specific reference to peace-keeping operations or security

arrangements. At the same time, the OAU Charter mentions co-operation for defence and security as one of the purposes of the organization. It also talks of the promotion of international co-operation, having due regard to the Charter of the United Nations, and the universal declaration of human rights. The OAU Charter is, however, emphatic on the peaceful settlement of conflicts.

The OAU accepts the United Nations as a valuable instrument for peace and as a mechanism in which the world can establish some common norms and rules pertaining to the conduct of relations among States. Equally, the United Nations recognizes OAU as a regional arrangement, within the meaning of the United Nations Charter, for dealing with matters related to conflict resolution, crisis prevention and management and, certainly, confidence-building among African States.

The major role of OAU and that of the United Nations in conflict resolution have been, by and large, complementary. Over the past years, OAU has tended to assume the primary responsibility for political and diplomatic aspects of conflicts in Africa while the United Nations has been inclined to limit itself to humanitarian aspects. This partnership presents a classic pattern for permanent co-operation in the fulfilment of the principles and purposes underlying a policy of continental peace based on preventive diplomacy. Outside the framework of the United Nations, OAU also has its own methodology and mechanisms for conflict resolution, prevention and management as well as confidence-building among African States.

My focus today is not, however, on such matters but rather on ordinary issues that often get glossed over or that are taken for granted when our experts propound and analyse strategic military doctrines and try, often without success, to fit the African context into tight theoretical frameworks. I proceed, of course, from the premise that Africa has prob-

lems that are unique to it, at least in magnitude. It should therefore have different concerns and priorities and should therefore approach its problems in a different way.

African countries have neither the capability nor a reason to pit themselves against other parts of the world in a fight for military supremacy. No amount of military procurement or deployment within an individual African country or in all of them collectively could possibly countervail against American or Soviet military Power, or even that of France. If we cannot arm ourselves enough to represent a credible deterrent to the outside Powers, why do we stockpile arms? The tragic character of the arms race in Africa is its inherent motivation to arm against neighbours, against sister countries!

This has been possible for a number of reasons, but it is due not least to our lack of political awareness of the indivisibility of the security of Africa. The security and stability of each African country is linked to that of its neighbours. Insecurity and instability are contagious. One country cannot enjoy peace by itself like an island in a sea of insecurity and conflict. Instability along the borders precipitates tensions and military deployments with the risk of armed confrontation, and gives rise to refugees.

Why then do African countries arm themselves despite the realization of the futility of pursuing security on an individual basis?

Since independence, there has been a steady increase in the level of armaments and arms expenditures. Admittedly, there were initial justifications for such increases but their rate of increase and their political contexts have gradually degenerated into factors of instability and insecurity. It was argued in most countries—perhaps logically so—that the security void left by the departing colonialists had to be filled. It was also argued that the function of government made military buildup necessary so that the government

could assume the role of defender and protector of the sovereignty and territorial integrity of the newly independent countries. Wars of liberation in southern Africa also justified the increase, despite the heavy burden it constituted for the weak economies of the nascent front-line States, but by far the most regrettable increase and the one that constitutes the largest part has been the buildup arising out of inter-State conflicts, especially over borders. Whether in Ethiopia, Somalia, the Sudan, Uganda, the United Republic of Tanzania, Kenya, the Libyan Arab Jamahiriya, Chad or in other countries, increases in military expenditures are or were directly linked to the prevalence of conflict situations. The cost of these increases has had serious consequences as regards the ability of those countries to pursue development objectives and, despite minor decreases, Africa still spends more today on arms than on education, health or social development, at a time when there is a general decline in military acquisition world-wide.

Border and boundary problems are not new to Africa. They are inherent in the arbitrary demarcation of boundaries by the colonial administrations, but with the exception of a relatively few open hostilities, most border areas have remained calm or, at worst, the hostilities have been only latent. In the period following independence, hostilities were eclipsed by the euphoria of newly won national freedom and the fervent hope for continental unity. This was certainly not the only reason. The more self-serving reason was the reluctance to open up an endless chain reaction of boundary claims across the continent. Realism constrained the countries to adopt the principle of the inviolability of the boundaries inherited from the colonial period.

In more recent years, however, with the euphoria long gone and the tasks of government more exacting, States have tended to be less mindful of African solidarity and OAU Charter provisions. Population pressures, desertification cou-

pled, in some cases, with the discovery of resources in bordering areas, have become catalysts for conflicts. The acute economic problems facing most African countries have subordinated the ideals of the African consensus over boundaries and have almost created a justification for sustaining some of these border conflicts. At times nationalism has been invoked.

Religion has had also its own contribution to conflicts though to a much less extent. But the resurgence of fundamentalism, Christian and Islamic, threatens to throw the continent into new forms of conflicts. With the exception of Mauritania, Comoros and in some ways the Sudan, all the other African countries have secular governments. Admittedly, there has been a continent-wide effort on the part of all Governments not to precipitate or to stir up the latent religious differences. But this does not mean that Africa has, on that account, immunized itself from religious strife. To the contrary, there have been riots and sometimes wars fought over religious differences. The war in the Sudan has religious overtones as did the confrontations in northern Nigeria.

Differences based on religion do in a very real way threaten the security and stability of African countries. It is, therefore, necessary that as an insurance against violence motivated by religious convictions and competition, African Governments should elaborate mechanisms of governance that do not accentuate these differences but should rather seek national harmony based, in part, on unfettered freedom of worship and secure foundations of secular government.

Problems of tribalism and regionalism led to the bitter civil war in Nigeria and they continue to be sources of tension in many African countries. Now, inter-clan wars are threatening to tear Somalia apart and add to the already complicated and delicate situation in the Horn of Africa. In the Sudan, a war is raging on. A combination of factors, not least those of ethnicity, have thrown the country into a destructive war.

Quite apart from these factors with military implications which put Africa's security in jeopardy, there are various non-military threats as well, threats which cannot be contained through the traditional mechanisms for the maintenance of peace. No third party or any innovative mechanism can replace the process of national consensus within countries. Only through continuous debate and consultation can agreement be found on means to remove these threats.

In African countries, as elsewhere, there are considerable economic disparities, despite many genuine national experiments to reduce income ratios and provide essential social services. There are many countries which are grappling with demands for democracy and human rights despite constitutions that guarantee such fundamental rights. In all of these, we need national means of conciliation and conflict resolution.

Poverty has had a debilitating effect on our continent and our ability to recover is seriously constrained by the weak base of our economies. Africa's income has plummeted with the collapse of commodity prices and a corresponding increase in the cost of manufactured products. Despite many structural adjustment arrangements with the world monetary and financial institutions, most countries are far from recovery. We spend about 50 per cent of our total external earnings on servicing external debt. Our per capita incomes continue to fall and about half of the entire population of our continent now live below the poverty level, despite the fact that they are working harder than before. Africa now works more and more for less and less.

A combination of drought and, in some cases, unsuitable agricultural policies has wrought havoc with the agricultural base for food production. The child mortality rate for Africa is more than 100 per cent above the average for the whole of the developing world, and a staggering 165 million Africans still languish in illiteracy.

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All these are factors inimical to the stability and security of Africa. They need to be tackled first by Africans themselves. Africa has to look to itself for answers to her economic problems. We need to co-ordinate our efforts on the basis of the Lagos plan of action, on the basis of collective self-reliance to work towards self-sustaining economic development. Collective action within Africa to deliver the continent from its economic doldrums is the most important aspect of African security. A starving child in Sudan or Ethiopia or Tanzania is not threatened by nuclear weapons or machine-guns so much as by a lack of food and the prospect of death from starvation.

In my view, perhaps the most serious threat to Africa comes from a sometimes poor relationship between the people and their governments. Many countries are still grappling with the problem of working out an ideal model for such a relationship—a *modus operandi* in politics. The tensions which have resulted from an inability of governments to respond in a satisfactory way to the need of the people to participate democratically in governance has led to a *de facto* freeze on popular participation in the political process and agitation by the people for such participation.

Whatever has been the form of the relationship between the people and the government, the African masses have not, by and large, been given adequate opportunities to find an outlet for their creative energies and apply them to development. In the process of containing dissent and ensuring self-preservation, certain elements within the ruling establishments have committed excesses and violated human rights. A resulting vicious circle of agitation and containment has literally applied brakes to development. In more ways than one, the peoples' despair has given rise to an almost fatal sense of cynicism with regard to the future of the continent and to pessimism regarding the policies of governments. This apathy has killed the initiative of the people and

instilled in them a deep sense of self-doubt which poses a significant long-term threat to Africa's security.

Those less charitable about Africa have sought to apply different standards to Africa and justify such situations because it suits their interests. They argue that African societies are more amenable to military rule and that participatory democracy on the Western model is alien to Africa. Those even less charitable have argued that people in Africa should be more concerned about hunger and poverty and less about academic issues such as democracy. In other words, democracy is the pastime of the rich and the affluent. Such arguments are advanced to support the forces against democracy and development in Africa. How is it possible to talk about the liberating qualities of democracy and its positive impact on development in Eastern Europe and the Soviet Union and at the same time deny democracy to Africa?

There is now a steadily growing realization in Africa that its future lies in democracy based on popular participation both in government and economic development. This realization is best illustrated by the growing trend towards civilian rule. Most military governments are realizing that constitutional rule provides a more stable basis for political legitimacy and for the long-term prospects for national security.

Questions of political participation are internal issues and there is therefore little room in such matters for innovation in conflict resolution nor is there an explicit role for OAU. None the less, society comes to terms with its own needs and abilities. A national process develops which influences the way that society views conflicts with others. More peace internally contributes to peace-building externally.

Conflict resolution and management presuppose the political determination on the part of the parties in a conflictive situation to abandon war as a means of settlement and to embark instead on a peaceful course. The essential

ingredient of this peaceful process is negotiation. Negotiation is both a process and a means towards pacific settlement.

Negotiations as an objective must entail shared perceptions by the parties on the general form of the settlement towards which they work. They may have divergent views as to the mechanism, priorities and areas to be stressed but they need to have a common concept of the final outcome of those negotiations. It is the element of common denominators that is instrumental in successful negotiations. Negotiation as a process involves a political determination by the parties that a fair settlement is possible through negotiation. It is a belief on the part of the parties in the ability or potential of that process to bring about equitable settlement. Negotiation as a political phenomenon must involve a realization by those concerned that ultimately an equitable and lasting solution lies, not in the continuation of conflict, but in pacific settlement. It implies a certain balance of forces.

Whatever the military statistics or equations, negotiation is possible only if the parties have confidence in both the process itself and in those who act as mediators. Credibility is the essence of any mediation effort. This credibility is not acquired all at once. To be credible, individuals or countries must, over a period of time, have demonstrated the necessary political skills in their involvement in other conflict situations. They must also have an impeccable record of impartiality and be able to inspire the confidence of parties to a conflict.

Some conflicts are so complicated, sometimes by extraregional power involvement, that they do not lend themselves to an easy solution regardless of the credentials and the efforts of the mediators. Sometimes, they involve personalities who see resolution of a given conflict linked to their political future. Sometimes, they are conflicts invoking such deep emotional and nationalistic feelings that it is an exercise in futility to try to advance logically reasoned ar-

guments, especially at the peak of the conflict. Experience has demonstrated that such conflicts are resolved by time with changing political circumstances and personalities. It is with these considerations and on these premises that OAU has approached its role in the field of conflict resolution.

Among the principles of the OAU Charter is the solemn affirmation by the African States of the principle of the peaceful settlement of disputes by negotiation, mediation, conciliation or arbitration. Consistent with this affirmation, the founder members created a commission of mediation, conciliation and arbitration. A protocol to the agreement sets out the guidelines for its composition, activities, operation and areas of competence.

Over the years, there has been little recourse to the commission. Differences largely over its mandate as well as reluctance on the part of member States to submit themselves to mediation have not enabled the commission to function as envisaged. The absence of mediation by the commission does not, however, imply that there have been no mediation efforts at the level of OAU. Over time, and depending on the nature of the conflicts, the member States have dared to be innovative and in the process have contributed positively to conflict resolution and management.

Admittedly, owing to the sensitivity of the issue, in particular as it touches on matters of national sovereignty, the OAU bodies have been rather apprehensive when dealing with mediation. The limitations placed by the Charter on the extent of involvement in mediation make any would-be mediators sceptical about the possibilities of securing the consent of parties to the mediation. This scepticism has, in my view, been the greatest hindrance rather than the actual refusal of the member States involved in a conflict.

All this notwithstanding, there have been some commendable efforts and even if success in solving the conflicts has not always been forthcoming, the measures taken had

clear advantages. They underlined the concern of the mediators and demonstrated their willingness to put themselves at the service of the African States concerned.

This has been done through a variety of techniques quite outside the purview of the Charter. There have been third-party efforts at mediation, conflict resolution and prevention. Individual countries or a group of them have undertaken such missions. While these were not under the auspices of OAU as such, it was the ideals of brotherhood and unity embodied in OAU that were invariably the guiding spirit. The efforts by Kenya and Zimbabwe to mediate the internal conflict in Mozambique or the Gbadolite summit in Zaire on the Angolan war are cases in point.

At times, individual countries or heads of State have taken initiatives to resolve conflicts. Examples include the efforts of President Eyadema of Togo to find a solution to the differences between Côte D'Ivoire and Liberia and the involvement of President Moussa Traore of Mali in the mediation efforts of the Senegal/Mauritania conflict. Non-governmental organizations such as the Church in Mozambique have also been involved in mediation exercises.

Apart from these third-party approaches, the Secretary-General of OAU and its current Chairman have used their good offices to intervene positively in conflicts. This has essentially been intervention with a view to urging restraint and containment of a potentially explosive situation and avoiding its degeneration. The usual temporary abatement in the intensity of conflicts resulting from such appeals has provided time for reflection and sober judgement. Again, even when no solution is reached immediately, this lull has provided an invaluable breathing-space both to the mediators and to those involved in the conflict. The Secretary-General has at times made concrete proposals on how to arrive at a pacific settlement and so has the OAU Chairman. This has, however, been done with the understanding that these good

offices can be put at the disposal of the parties when they themselves are prepared to use them in a positive way. The role of OAU is to help provide the necessary atmosphere for negotiation. It is in this spirit that I am currently following the situation between Senegal and Mauritania as well as that between Chad and Libya.

Most important, however, is not the fact that OAU or its officials can offer their services but that the parties do demonstrate confidence in its ability to contribute positively to the resolution of the conflicts. It is this deep-seated confidence in OAU—even though few will readily acknowledge it—which in my view needs to be nurtured and developed in the minds of the African people. We need to build a grass-roots constituency for OAU in all the African countries so that recourse to the OAU mediation mechanism becomes a reflex action, in-built in the national political conscience. We should be able to build a new peace culture among the people of our countries—a culture which is not pacifist but which recognizes the virtues of the peaceful process. In the long run, this will prove a more credible assurance for conflict management and resolution than constitutional provisions in the OAU Charter or any other legal document.

Among the various methods of conflict resolution, management or prevention, it is the confidence-building approach that holds the greatest promise. Through the building of a system of political accommodation by means of greater transparency in military procurement and deployment, neighbouring countries can gradually retreat from confrontational relationships. For example, the exchange of information on military establishments, the initiation of joint-training programmes, joint manoeuvres, establishing joint research and development projects will promote peace at a much lower cost and will yield more political dividends.

Weaving these confidence-building measures into the fabric of African defence doctrines and the perceptions of

our defence establishments will create a more stable environment in which activities that open the way for greater peace can be initiated. I have in mind the importance of mutual confidence leading to economic co-operation and regional integration with shared security concerned and a minimal reliance on armaments.

Regional co-operation as a confidence-building measure can sustain co-operation, friendly relations and peace. The Southern Africa Development Co-ordination Conference is a case in point. On the one hand, the opportunities for co-operation and contact which they offer promote human understanding and create an economic motivation to promote security and prevent conflict. The more the countries have jointly at stake, the more the motivation for peaceful relations. Quite apart from this economic incentive of avoiding conflict, the summits of these organs can assume a political role of mediation.

As a confidence-building measure, I see for example no reason why, in the case of disputed border areas, the bordering countries cannot come together and exploit the area jointly as a shared enterprise. This implicit recognition of common ownership of both or more parties in the disputed area will transform it from a centre of conflict into a theatre of co-operative endeavour. If the concept of common heritage were to be applied to disputed border areas, this would have gone a long way towards strengthening the basis for co-operation and reducing the incidence of conflict.

The Organization of African Unity has had one real experience of a peace-keeping operation. The Chad Initiative failed to enlist the financial and political support necessary for its success, but what is politically important is that it was an African initiative undertaken by Africans. It showed that such an operation was possible and the lessons learned are important. I am sure that in future we shall have a more

organized and well-funded operation but I hope that the need for such an operation will never arise again.

Europe is going through a phase of basic transformation. The era of military confrontation, threats of nuclear war and of ideological incompatibility are giving way to political accommodation and economic co-operation. Europe is no longer talking of war. The traditional concepts of security and defence doctrines are being replaced by new concepts of co-operation. Military alliances are rapidly losing their relevance in the changing political and security environment. All this is not the result of a miracle: it is a result of a realization in both Eastern and Western Europe that, ultimately, genuine security lies, not in walls separating families and communities, not in tanks or soldiers, but in co-operation and mutual trust.

This move towards European integration will have far-reaching economic, political and security implications for Africa. If Europe, with a relatively less urgent need to unite, with less economic incentive to integrate, finds it necessary to do so, why should Africa not be thinking along the same lines? We need to harness all our resources and target them to development.

It is my firm belief that in the final analysis, Africa's security does not lie in arms. It does not lie in the number of anti-ballistic missiles, fighter aeroplanes, frigates and submarines, tanks and anti-personnel vehicles, rocket launchers and machine-guns or ammunition. It does not lie in the development of nuclear weapons. On the contrary, our real security lies in our ability to harness our resources and manpower and to direct them positively to economic development. It lies in our ability to fight desertification, to eradicate hunger, poverty and disease, to end feuds and conflicts, and in our preparedness to usher in democratic government, in which human rights are sacrosanct and the rule of law is taken for granted as an intrinsic right of citizens and an

essential attribute of constitutional rule. Africa is too poor, too backward and too wanting in many technological and economic respects to scuttle its energies or to devote its resources to wars and conflicts. All this cannot be possible unless Africa is ready and willing to rise above the narrow thinking of isolationism and misplaced notions of an inflexible approach to sovereignty and come together in co-operative unity.

No country can by itself find solutions to all its security problems. The countries of Europe have come to that conclusion and are pulling together. Africa's enduring security ultimately lies in its unity of purpose and of action.

Documentation Relating to Disarmament

Statement made on 5 March 1990 by the President of the United States of America concerning the Treaty on the Non-Proliferation of Nuclear Weapons

Twenty years ago today, the Treaty on the Non-Proliferation of Nuclear Weapons entered into force. One hundred and forty States have joined the Treaty, making it the most widely accepted arms control instrument in history. The Treaty on the Non-Proliferation of Nuclear Weapons represents the primary legal barrier to nuclear proliferation and thus constitutes a principal foundation of international security. Later this year, the parties to the Treaty will convene the Fourth Review Conference of the Treaty. In the context of this review, I reaffirm the determination of the United States to carry out its treaty commitments and to work to assure its continuance in the interest of world peace and security.

The Treaty on the Non-Proliferation of Nuclear Weapons has been not only a significant arms control instrument, it has also facilitated international co-operation in a wide variety of peaceful uses of atomic energy under the International Atomic Energy Agency. These applications have included using nuclear technology to improve health conditions, as well as to increase agricultural output, electric power generation and industrial capabilities. The United States will continue to play a leading role in nuclear co-operation pursuant to the Treaty.

Our long-standing commitment to serious arms control negotiations has helped to bring forth a number of important arms control agreements, including the Intermediate Nuclear Forces Treaty, concluded in 1987. At this very moment we are making significant strides towards concluding far-reaching arms control agreements in the nuclear and conventional areas.

It is essential in these times of great change and great promise, and of major progress in arms control, that the community of nations work together even more diligently to prevent nuclear proliferation, which poses one of the greatest risks to the survival of mankind. I urge all States that

are not party to the Treaty on the Non-Proliferation of Nuclear Weapons to join and thereby demonstrate their support for the goal of preventing nuclear proliferation, and I call upon all States parties to the Treaty to join our efforts to secure the integrity of the Treaty on the Non-Proliferation of Nuclear Weapons, which benefits all countries.

Memorandum on the European Security Commission issued on 6 April 1990 by the Federal Ministry of Foreign Affairs of the Federal Republic of Czechoslovakia

Political developments in the world, and particularly in Europe, are unfolding with such speed that the existing institutions are no longer in step with them. After years of confrontation, Europe finds itself at the start of a new stage. This gives rise to new possibilities, but also to certain risks. The security structure of the Continent stemming from the post-war realities is still based on the principle of a balance of forces between the two blocs. Its foundations, however, are not solid, because they rest on artificial dividing lines. The division of Europe into two parts, as well as the division of Germany into two States, has outlived itself.

The sources of potential European conflicts are more heterogeneous than has until now been envisaged by the bipolar confrontational system. From that follows the necessity of conceiving European security more broadly and of including in it, in addition to political and military aspects, also economic, environmental and humanitarian aspects, as well as the possibility of other threats. Such security, however, cannot be safeguarded by the existing confrontational security system, but only by a new Europe-wide structure of peace, stability and confidence. The profound political changes in Central and Eastern Europe add to the urgency of the need for such a modern structure.

The Warsaw Treaty and NATO operate today under different conditions than those under which they came into being. Those organizations, which, until now, have divided Europe, should shift the focus of their activity primarily to the field of disarmament. We assume that further development will enhance their political role and will gradually tone down their military role. This process, at the same time, will not have to proceed symmetrically, since, in many aspects of their activities, the two groupings are not identical.

We believe that the best suitable basis on which to build a unified all-European security system is provided by the CSCE process. The new situation in Europe demands of this process to be heading with greater momentum in the direction of a second generation of Helsinki understandings. These should create the prerequisites for the gradual establishment

of a common system of European security. The attainment of that goal calls for institutionalizing our joint efforts within the Conference on Security and Co-operation in Europe (CSCE) and creating effective mechanisms of a new type.

A longer-term outlook of building a modern security system calls for making full use of the experience of the existing institutions of multilateral co-operation such as the Council of Europe and others, which should gradually become Europe-wide.

Seeking new possible approaches, we proceed from the positive lessons learned so far in the CSCE process, as well as from the need to respond to the development in Germany and to the profound social changes in Central and Eastern Europe.

In keeping with the purposes and principles of the Charter of the United Nations and of the Conference on Security and Co-operation in Europe, Czechoslovakia proposes, in the first stage, the establishment of a European Security Commission comprising the participating States of the Helsinki process.

Its justification is seen by us in the fact that it would provide a permanent all-European platform for the consideration of questions relating to security on the Continent, and for seeking their solution, which, until now, has been missing. This European Security Commission would operate side-by-side with the existing two groupings and independently of them.

The formation of an effective system of European security would, in the second stage, be facilitated by the establishment, on a treaty basis, of an Organization of European States, including the United States and Canada.

The third stage would culminate in a confederated Europe of free and independent States.

The European Security Commission would operate on the basis of consensus. It would initially fulfil consultative, co-ordinating and certain verification functions and, later on, such functions as would be agreed by the participating States. This would include, in particular, the following tasks:

—Considering international political correlations of European security and proposing the adoption of appropriate measures;

—Forestalling threats to European peace and security, the rise of exacerbated situations, disputes, military incidents and conflicts, and recommending, as well as offering, means of their settlement (good offices, mediation, fact-finding, conciliation etc.);

—Dealing with questions of threats to, and violations of, security

that are due to economic, ecological and humanitarian causes and assume large proportions and have international implications;

—Creating a scope for direct contacts and negotiations of the two groupings and their members, attended, if need be, also by the European neutral and non-aligned countries;

—Commenting on the conduct of negotiations by the European disarmament and security forums and proposing their further orientation;

—Considering the possibilities of expanding the agenda of the existing disarmament forums and the establishment of new ones;

—Considering reports by verification and consultation centres on compliance with European arms control and security agreements;

—Informing each other on doctrinal, structural, organizational and budgetary changes relating to the armed forces of the participating States and on the introduction of new weapon systems by them;

—Informing the United Nations, as well as regional organizations, on the results achieved in the sphere of European disarmament and security.

The Commission would meet at the level of Ministers for Foreign Affairs and their Permanent Representatives. Regular sessions at the level of Ministers would be held at least once a year. Extraordinary sessions could be convened at the request of participating States.

Sessions of Permanent Representatives would be held once a month or more frequently, if so requested by a participating State.

Subordinated to the Commission would be a Military Committee composed of military representatives of the CSCE participating States. It would meet at least once a year and would deal with questions specified by the Commission. For the purpose of the implementation of its tasks, the Commission may establish auxiliary bodies. The necessary technical services for the Commission would be secured by a not very sizeable, operative, permanent secretariat.

Czechoslovakia offers Prague as the permanent seat of the Commission. At the request of the participating States, the Commission could also meet elsewhere.

The forthcoming Summit of the 35 participating countries, which will consider important questions of the further development of security and co-operation in Europe, could adopt a decision concerning the creation of organizational prerequisites for the establishment of the European Security Commission as a nucleus of a new security structure on the Continent.

Czechoslovakia, for historical, political-strategic and other reasons, has an eminent interest in the creation of such a structure. While

drafting our proposal, we took into account the suggestions which have so far been submitted by the other CSCE participating countries and which came close to our concept of European security. This proposal is open to discussion.

The dynamic development on the Continent creates conditions for various approaches to the shaping of all-European structures and their appropriate mechanisms. The goal however, should be to create a new, sufficiently flexible and future-oriented model of European security.

Such a development should be in the interest not only of Europe, but of the whole world.

Recent Books and Articles

Boyd-Carpenter, Thomas. *Conventional Deterrence into the 1990s*. New York, St. Martin's Press, 1989. 189 p.

Following a foreword by a Member of Parliament of the United Kingdom, Michael Heseltine, Thomas Boyd-Carpenter's *Conventional Deterrence into the 1990s*, fairly bristles with distinguished contributors. The book, which is divided into two parts, addresses various aspects of future deterrence problems from a NATO (mostly British) perspective in the light of the onset of the so-called "Gorbachev era" in the Soviet Union, the negotiation of the INF Treaty, and technological developments.

In the first part, Boyd-Carpenter (who is the Chief of Staff at the Headquarters of the British Army of the Rhine) provides a framework to tie together the contributions of the second part. Following an extensive discussion of the political context of deterrence, he concludes that, despite recent, and probably continued, progress in arms control negotiations for Europe, NATO is still a necessary entity. He also indicates strategic directions that NATO will most likely take in the next decade, increasing its emphasis on the maritime element and on the participation of the United Kingdom.

The second part presents short selections on aspects of deterrence by several contributors. British Member of Parliament P. George Younger addresses the necessity of stability in defence, former United States Chairman of the Joint Chiefs of Staff, Admiral William Crowe, discusses United States military objectives and global security, and West German General Hans Henning von Sandrart assesses the land battle and operational-level logistics in Western Europe. Other members of the military and academic fields study topics such as so-called "smart" weapons, defence procurement, air force capabilities, and future alliance policies.

Carter, April. *Success and Failure in Arms Control Negotiations*. SIPRI, Oxford University Press, 1989. 308 p.

April Carter provides an in-depth probe of the mechanics of arms control negotiations from 1958 to the present. By delineating factors contributing to both the failure and the success of arms control negotiations, the author produces a framework for an analysis of the results of past arms control negotiations. Beginning with the test ban talks of 1958-1963, she provides a case-study approach to her analysis of arms negotiations.

She analyses in detail the comprehensive test ban, the SALT I and II failures, the two-stage development of the INF and START treaties (which she divides roughly into the periods 1981-1983 and 1985-1989), the failure of the negotiations on mutually-balanced force reductions, and the limited concordance over the Conference on Security and Co-operation in Europe (CSCE) negotiations. In each case study, a summary of the negotiating process, the aims of the negotiations, obstacles to agreement, and implications of results for later developments are discussed in depth. The last two chapters focus on general factors contributing to the failure or success of arms control negotiations. Presenting no particular policy recommendations of her own, she concludes that "it is important to keep asking why so many arms control negotiations have failed and to review, in the light of contemporary ideas, how future generations might have a greater prospect of success".

Cimbala, Stephen J. *Nuclear War Termination: Concepts, Controversies and Conclusions*. Canberra, Australia, Peace Research Centre, ANUTECH, June 1989. 49 p. (Strategic and Defence Studies Centre Working Paper No. 186)

In this study, Stephen Cimbala studies the concept of the termination of nuclear war as a goal to be achieved by several means: effective crisis management, solid Command-Control-Communications-Intelligence (C^3I) networks, and an overall reduction in escalation and proliferation. With the focus on a potential NATO-Soviet conflict, Cimbala compares the different doctrines, practices and perceptions of both the NATO and Warsaw Treaty models, including the effects of time constraints, strategic-level versus operational-level planning, countervailing strategy, decision-making and command, United States strategy in response to unforseen situations, and the effects of a so-called "disembodied command"—a detachment of command from control resulting from the dilution of information which occurs as important data are relayed through the command hierarchy. Throughout the study, the importance of the C^3I networks and effective decision-making at command levels are emphasized as key elements in the successful management of a potential nuclear conflict.

de La Gorce, Paul-Marie, ed. "Dossier désarmement". *Défense nationale*, 9-60. décembre 1989.

This issue of the periodical *Défense nationale* includes four articles on disarmament: "La conclusion prochaine des START: triomphe de la

raison, ou essoufflement des champions?'' by Yves Boyer; ''La réduction des forces conventionelles en Europe'' by Walter Schütze; ''Réduction des forces et changements soviétiques'' by Jean Klein; and ''Le désarmament chimique'' by Jean Compagnon. The four articles discuss specific aspects of disarmament studies in detail. In a brief introduction, the editor of *Défense nationale* underscores the link between disarmament studies and problems of defence. Yves Boyer discusses the START negotiations between the United States and the Soviet Union, indicates the ceilings on missiles and warheads, and notes the obstacles which still stand in the way of completing the treaty (such as the issue of SLCMs and verification procedures). Political and bureaucratic factors, as well as new problems facing the two Powers, are also discussed. Walter Schütze analyses the CFE process from 1986 to the present. The different perspectives and options of East and West in effecting conventional arms control proposals are discussed, as are the implications of the proposals themselves for Europe. Jean Klein looks at the effects of the ''new thinking'' in the Soviet Union on military doctrine, concentrating on the concept of reasonable sufficiency. Elements of the defensive doctrine of reasonable sufficiency are outlined. The article by Jean Compagnon examines aspects of chemical disarmament, including the work of the Paris Conference and the Geneva-based *Ad Hoc* Committee of the Conference on Disarmament during the past year, bilateral United States-Soviet Union negotiations, the Canberra Working Group, and the problem of proliferation.

Ehrhart, H. G., H. Bauer and A. P. Teicht. ''Sicherheitspartner im Werden? Frankreich und die Europäische Sicherheit''. Hamburger Beiträge zur Friedensforschung und Sicherheitspolitik, Hamburg, Federal Republic of Germany, Institut für Friedenforschung und Sicherheitspolitik, 1989. 108 p.

In this October 1989 study, the development of the military relationship between the Federal Republic of Germany and France since the Second World War is discussed, and thoughts about how Europe will be structured in the future are presented. The booklet comprises three essays.

First, Hans-Georg Ehrhart describes how the views of the Federal Republic of Germany and France have developed in different ways as regards armament, disarmament and nuclear weapons. In the past, the Federal Republic of Germany and France have had many conflicting ideas about how the security of Europe should be structured. Nevertheless, they have been co-operating lately with a view to establishing a European security structure acceptable to both.

Harald Bauer concentrates on the French views of security, representing the problems of a Europe structured according to the Yalta Treaty, and of a united Europe. He defines the term "Europe" as it is understood by the majority of the French people and sets forth the various ideas the major parties in France have about this "Europe".

Arnold Peter Teicht traces the modernization of the French nuclear military power throughout the years and quotes French politicians to explain the need for this power.

Elliot, Jeffrey M., and Robert Reginald. *The Arms Control, Disarmament, and Military Security Dictionary*. Santa Barbara, California, ABC-CLIO, 1989. 349 p.

The authors of *The Arms Control, Disarmament, and Military Security Dictionary* have compiled 268 of the most common terms and concepts used in these three broad fields. The definitions themselves are divided into nine general subheadings (War and Peace, Military Security, The Arms Race, Collective Security, Conventional Wars and Weapons, Nuclear Weapons, Nuclear Strategy, Nuclear Proliferation, and Arms Control and Disarmament). A comprehensive index is provided at the end of the volume. Following the form of previous volumes of the CLIO Dictionaries in Political Science series, Jeffrey Elliott and Robert Reginald utilize extensive cross-referencing and a "definition-significance" system to discuss each topic, which accommodates a brief, but concise and comprehensive, discussion of all subjects covered. Some exceptional entries include "the Green Revolution", "Korean Airlines Flight 007", and "Living Room War". The volume provides a convenient "middle ground" between in-depth arms control, disarmament and security studies and terse, conventional lexicons. This volume provides a useful reference tool for students, librarians and laymen.

Foerster, Schuyler, et al. *Defining Stability: Conventional Arms Control in a Changing Europe*. Boulder, Colorado, Westview Press, 1989. 117 p.

The co-authors of *Defining Stability*, all National Security Fellows in the National Security Program at Harvard University's John F. Kennedy School of Government and career United States military officers, argue that stability should be the key objective in any long-term security policy for Europe. The authors define stability as "resistance to sudden change, such that a security relationship is unlikely to shift quickly from peace to war even under pressure of a crisis". From this definition, and taking into account the linkage between political and military policies, they attempt

to establish criteria for a stable security arrangement in Europe, one taking into account the changes now unfolding on the continent.

Effective management of the political environment, particularly as regards the situation of NATO and the rapid rate of change in Eastern Europe, is a key element in securing stability for all of Europe. The authors stress the importance of assessing the military problem; debate over the effectiveness of NATO, as well as critical variables which must be taken into account when comparing NATO and WTO forces, are analysed in depth. The authors proceed to define a framework for conventional arms control in Europe based on the idea that arms control must, above all, enhance security, which in turn translates into the augmentation of stability; this stability, they contend, can be achieved on both the political and the military level. They apply this framework to the negotiations on conventional forces in Europe (CFE). The volume concludes with an outline of their proposed policy for NATO (based on the application of their framework to the CFE process) and an appendix consisting of diagrams comparing NATO and Warsaw Treaty conventional forces.

Groupe de recherche et d'information sur la paix. *L'Europe des Armes: trafics et exportations vers le tiers monde*. Brussels, GRIP, 1989. 183 p.

This polished and well-organized volume, compiled by members of the Brussels-based Groupe de recherche et d'information sur la paix (GRIP), focuses on European arms exports to the third world. The activities and abuses of European arms manufacturers and their respective governments, especially Switzerland, France, Luxembourg and Belgium, are evaluated separately and in detail, including the implication of covert French-Iranian arms trafficking by the controversial Bebra report, the lax regulations of arms sales in Switzerland, and the border controls of Belgium.

An exhaustive case-study of Bofors of Sweden is presented, demonstrating the workings of a major arms manufacturer and exporter. The Belgian arms industry crisis of 1988 is also chronicled. In one chapter, imminent difficulties for French arms manufacturers, despite government controls, are also predicted. Other chapters explore the impact of arms purchases on third world countries and outline, country-by-country, Western Europe's involvement in arms trafficking to the third world. The final section examines methods of regulating arms transfers, and measures to limit arms trafficking are discussed, on both the national and the European level (including the full text of resolution A2-398/88, adopted by the European Parliament on 14 March 1988).

Kokoshin, Andrei. "The interrelationships between major components of defense policy", *Review of International Affairs* (Belgrade), 9:51: 9-12, 20 November 1989.

The author discusses the links between different sectors responsible for formulating the defence policy of a given country. Focusing on the Soviet model, Andrei Kokoshin relates the strong relationship of military institutions and the defence industry to the creation of defence policy, but also points out that, in the Soviet model, these factors have never completely governed the policy-making process: other, often intangible, factors are involved as well. He discusses the internal re-evaluation of Soviet military strategy currently under way, highlighted by the adoption of the new doctrine of reasonable sufficiency which the Soviet Union plans to implement through the restructuring of their forces in several areas.

Kokoshin examines the doctrine of reasonable sufficiency on the nuclear and conventional levels. In particular, he cites historical precedents as the basis for current operational-level models of this doctrine. He provides specific statistics on the planned changes in Soviet troop structure and cuts in the Soviet defence budget which would reflect an adherence to the doctrine of reasonable sufficiency. He concludes that the existing political climate would allow for a drastic re-deployment of forces in Europe and elsewhere, provided that the West reciprocates Soviet initiatives with initiatives of its own.

Krehbiel, Carl C. *Confidence- and Security-Building Measures in Europe: The Stockholm Conference*. Westport, Connecticut, Praeger, 1989. 388 p.

In this exhaustive study, a career United States Army officer in the United States Delegation to the Stockholm (CDE) Conference provides an American perspective of the process of negotiations during the period 1984-1986 which eventually resulted in the CDE agreement. The origins and progress of the Stockholm Conference are discussed in detail. Carl Krehbiel analyses the proposals agreed upon by the 35-nation Conference in depth and the effect of each proposal upon the existing military forces in Europe, thereby bringing a pragmatic dimension to the study of a topic which, the author contends, has been hampered by too much discussion of arcane "conceptual frameworks".

Each chapter discusses a different set of proposals covered in the agreement, including notification of military activities, notification of air and naval activities, notification of movements and transfers, the exchange

of military information, observation of military activities, constraint measures, and verification of confidence- and security-building measures. Throughout his analysis, Krehbiel stresses the difference between proposals that could potentially contribute to the security in Europe and those that certainly will not do so. He assesses the Document of the Stockholm Conference as a whole, and emphasizes what he believes to be the ultimate flaw in the agreement: a misperception of where the actual offensive threat lies—not in the weapons themselves, but in those who use them. Documentation from the CDE and other related conferences are given in appendices.

Legault, Albert, and Michel Fortmann. *Une Diplomatie de l'Espoir—Le Canada et le Désarmement 1945-1988*. Les Presses de l'Université Laval, 1989. 643 p.

This volume presents a comprehensive and well-written account of four decades of disarmament efforts from a Canadian perspective. Starting out with a cogent discussion of the disarmament *problématique*, the authors identify the forums as well as the issues important for Canada, such as the Disarmament Commission of the 1950s, the initiatives to control chemical and biological weapons, the efforts directed towards nuclear non-proliferation and the negotiation of a comprehensive test ban as well as the preservation of a non-militarized status for outer space. The last three of thirteen chapters are devoted to the negotiations on mutual and balanced force reductions and the Helsinki process. The authors' concise style, the clear structure of the book and its exhaustive index make it a useful source book for students of Canada's involvement in disarmament matters during the period after the Second World War.

Looney, Robert, and P. C. Frederisken. "Defense spending, growth and implications for third world disarmament", *Strategic Digest* (New Delhi), XIX:10: 1331-1336, October 1989.

The authors discuss the interrelationship of disarmament and social and economic development, focusing especially on the plight of least-developed countries (LDCs), a topic that has been a specific concern of the United Nations since 1969. They suggest that the net benefit which some LDCs have derived specifically from a burgeoning defence industry is a fundamental reason for their unwillingness to disarm; this situation, in turn, hinders the efforts of all third world countries to disarm.

The authors discuss the relationship between defence and economic growth, citing examples of the negative effects which defence spending

can have on economic growth. They also review the results of empirical studies undertaken by several researchers in the field and conclude that disarmament efforts in some third world countries, usually the most influential and economically successful, could bring about a period of economic decline for those countries, making disarmament efforts by the United Nations and other organizations even more difficult.

Lutz, Dieter S. ''Basic Law, Security and Peace, Armament and Disarmament''. Hamburg, Institut für Friedensforschung und Sicherheitspolitik an der Universität Hamburg, 1989. 33 p. Hamburger Beiträge zur Friedensforschung und Sicherheitspolitik, Heft 38.

On the occasion of the 40th anniversary of the Basic Law of the Federal Republic of Germany, Dieter Lutz takes a look at the claims and the reality of the peace imperatives written into it. Lutz notices a great discrepancy between the viewpoint laid out in the Basic Law and the fact that the Federal Republic of Germany is marked by a high degree of military and destructive potential and has also developed into the fifth most important arms exporter. He stresses five imperatives to close the gap between claim and reality. Common Security and how it can be attained is dealt with in Part 2. The aims of Common Security—in particular, the end of deterrence strategy and its replacement by arms limitation, military force reductions and the structural inability to launch an attack—are examined. The Federal Republic of Germany is *bound* by its own constitional articles to avoid wars of aggression and to promote unilateral disarmament and an unambiguous defensive posture of its forces. Thus, Lutz argues, defensive preparations should be subject to legal restrictions. Defence should not be concerned with ''territorial integrity'', but with ''structural congruence''. Lutz emphasizes that ''whoever seeks long-term common security, including deep defence budget cuts, must oppose any further twisting of the meaning of the Constitution by interpretation before it is too late''. This argument should be considered now that the doors to the East have been opened and the military status of the Federal Republic of Germany needs to be redefined.

Mason, R. A. ''Airpower in conventional arms control'', *Survival* (London), XXXI: 5: 397-414. September-October 1989.

R. A. Mason, a retired Royal Air Force Air Vice-Marshal, discusses the airpower element as it pertains to arms control initiatives such

as the negotiations on conventional armed forces in Europe (CFE). He notes the significance of the so-called "Bush initiative", which constituted a reversal by the Bush Admnistration of NATO's long-standing policy to keep combat aircraft out of any negotiations. He outlines the formal terms of this initiative, presented in a position paper on 13 July 1989, explaining the limits and definitions proposed by NATO for combat aircraft and helicopters. Air combat environments, combat doctrines and hardware of the Warsaw Treaty Organization and NATO are compared. Differences on airpower between NATO and the WTO are outlined and evaluated. Disagreement over definitions, the "global" factor, infrastructure, and doctrines are viewed as particular stumbling-blocks. However, Mason's conclusions on future negotiations are optimistic; he seems to perceive a new willingness on the part of all parties to adopt confidence-building measures and real initiatives towards arms control in the air.

Moiseyev, Mikhail. "Reduction of armed forces and armaments—a guarantee of security for all", *International Affairs* (Moscow), 9: 3-12, September 1989.

Mikhail Moiseyev, Chief of the General Staff of the Soviet Armed Forces, discusses the proposals for, and process of, arms reduction recently planned by the super-Powers. He outlines plans for Soviet military withdrawals in Eastern Europe and Mongolia, emphasizing the defensive posture of Soviet troops once the reductions have been realized. He also addresses the restructuring of Soviet Interior Military Departments, the correlation between force withdrawal and the Soviet defensive military doctrine, the Soviet implementation of the INF Treaty, and the reorganization of troops on the Soviet-Chinese border. Moiseyev discusses the importance of mutual security, co-operation, and confidence-building measures in disarmament initiatives, and recalls recent super-Power initiatives of this nature, such as Soviet Marshal Sergei Akhromeyev's visit to the United States, and Admiral William Crowe's reciprocal visit to the Soviet Union. Moiseyev tempers these positive developments with a discussion of the considerable differences remaining between the Warsaw Treaty Organization and NATO on topics such as air-defence fighters, tactical nuclear weapons, the Strategic Defense Initiative, and cruise missiles. Moiseyev reviews the position of the Warsaw Pact in arms reduction and arms control negotiations, using historical precedent to underline the defensive character of the Soviet forces, and notes the immediate economic and social benefits which the Soviet Union has garnered by effecting a defensive military doctrine.

Pilat, Josef E., and Robert E. Pendley, eds. *Beyond 1995: The Future of the NPT Regime*. Plenum Press, New York, 1990. 257 p.

This volume contains 13 essays addressing the prospects of the nuclear non-proliferation Treaty (NPT) in its twenty-fifth year—1995—when it will be reviewed and decisions will have to be taken about its future. Will the Treaty continue after 1995? Will it be changed? What would be the situation if, for one reason or another, it ceased to exist? The contributors, from different countries and with much accumulated knowledge and experience of the Treaty and its implementation, offer insights on the past and thoughtful views on the future. This survey of key issues will be of value to policy makers and researchers, and a good introduction, for newcomers, to nuclear non-proliferation topics.

Purver, Ron, ed. *The Guide to Canadian Policies on Arms Control, Disarmament, and Conflict Resolution*. Ottawa, Canada, Canadian Institute for International Peace and Security, 1989. 272 p.

Purver, Ron, rév. *Guide sur les politiques canadiennes relatives à la limitation des armements, au désarmement, à la défense et à la solution des conflits*. Ottawa, Canada, Institut canadien pour la paix et la sécurité internationales, 1989. 311 p.

The Guide, which has contributions from three authors (Johanne Di Donato, Peter Gizewski, and Michael Holmes), presents an annual survey of Canadian involvement in disarmament, arms control, and conflict resolution. Within the scope of arms control and disarmament, the 1989 *Guide* reviews topics such as the START negotiations, defence and space arms (DST) talks, nuclear-weapon-free zones, confidence- and security-building measures (CSBM), non-proliferation, fissile materials exportation, verification, and arms transfers; the Canadian Government's position on each topic is presented. Defence-related topics, such as NORAD and NATO, peacekeeping, cruise missile testing and Arctic sovereignty are also assessed in a separate section. Appendices show Canadian treaty obligations, armed forces order of battle, involvement at the United Nations, contribution to peacekeeping, public opinion, and official assessments of the strategic nuclear balance.

Ross, Michael L., "Disarmament at sea", *Foreign Policy*, Number 77: 94-112, Winter 1989-1990.

Michael Ross, the international communications co-ordinator for Greenpeace's Nuclear-Free Seas Campaign, presents a critical view of the development of super-Power naval disarmament in the last decade, focusing especially on the specific interests of the United States Navy. Ross attempts to demonstrate that the accelerated growth of the United States Navy during the first half of the 1980s, coupled with its new maritime strategy, was the result of several factors, including the "pro-military fanfare of the early Reagan years" and the Soviet Navy's own expansion in the late 1970s. He also notes the turning-point of United States naval expansion, occurring in 1986, and the subsequent criticism leveled by various interests against the Navy itself, its huge budget, and its maritime strategy.

Ross alludes to the significance of the ANZUS crisis as the precedent for a "nuclear allergy" which could afflict United States naval and foreign policy interests elsewhere—Denmark or the Philippines, for example—if controversy continues over nuclear-armed vessels. Systems such as the Tomahawk, ASROC and SUBROC, including their strengths and weaknesses, for both the Navy and United States policy makers alike, are evaluated. Ross outlines Soviet proposals for comprehensive bilateral naval reductions, which have been repeatedly rejected by the United States Navy. In his conclusion, the author contends that the United States Navy is self-preserving and old-fashioned; like it or not, it will probably be forced to change with the times sooner than later.

Royal United Services Institute for Defence Studies, eds. *RUSI and Brassey's Defence Yearbook 1989*. London, Brassey's, 1989. 361 p.

This compilation presents a wide variety of articles related to the defence, security and disarmament fields. Part One is subdivided into four separate sections, examining "International Security and the Atlantic Alliance", the "Middle and Near East", the "Soviet Union and Eastern Europe", and "Technology and Space". Ambassador Sir Michael Alexander, Ambassador Alfred J. Cahen, and Prime Minister Turgut Ozal of Turkey are among the distinguished contributors on the prospects for NATO, the Atlantic Alliance, and a European common security system. Egypt and its army, and the experiences of the super-Powers in the Persian Gulf are two questions explored in the following section of Part One. Defence, political and economic aspects of the changing Soviet-Eastern bloc situation have been given attention in a separate section. Western

prospects for the utlization of space for defence are also highlighted, as is a space-based system for verification of conventional arms reductions. The second part of the *Yearbook*, "Signposts", focuses on several recent trends regarding world events and defence studies, including a chronicle of the Iran-Iraq War, a record of Soviet satellite launches in 1987, a timetable of Soviet withdrawal from Afghanistan in 1988, and an arms control chronology for the period August 1987-July 1988.

Thompson, Gordon. "A Global Approach to Controlling Nuclear Weapons". Cambridge, Massachusetts, Institute for Resource and Security Studies, October 1989. 34 p. (Perspectives on Proliferation: IRSS Occasional Paper No. 2)

Gordon Thompson discusses the existing arms control framework, focusing especially on the non-proliferation Treaty (NPT) of July 1968. According to Thompson, the main problems with the NPT and the existing arms control structure are loopholes and lack of sufficient regulations or enforcement. He also touches on the continued and intensified proliferation of nuclear weapons in three dimensions (horizontal, vertical and latent). The author argues for a global approach in which the nuclear-weapon States could "share the power" with non-nuclear States. The adoption of a global approach towards arms control, he suggests, would set a precedent for solving international security problems, lead to greater global stability, reduce the economic burden of the super-Powers, and demonstrate the moral responsibility of a government to its people. Thompson outlines the characteristics of such a global framework, which hinge on the need to address all dimensions of proliferation, the need to regulate all States, and the need for all States to share responsibility.

Trade Union Report on Chemical Weapons. Brussels, Belgium: ICFTU, September 1989, 40 p.

This report provides a lucid and well-organized introduction to the topic of chemical weapons. Chemical agents, divided into five different categories (nerve gases, blister agents, lung-damaging substances, poisons, and psychochemical substances), are discussed in detail, including their symptoms, their treatment, and their effects on the environment. Types of protective measures, dispersion and weather effects are evaluated. On the strategic level, the means of production, acquisition and possession are discussed. Since many chemical precursors for chemical weapons also have peaceful uses, the difficulty of restricting production is emphasized. The need for international agreements is stressed, and characteristics of a

possible chemical weapons convention are set forth. Other efforts in chemical weapons control, such as confidence-building measures, export controls, and the role of the chemical industry itself, are also noted. In three appendices the author outlines definitions of toxicity, substances which would be covered by a chemical weapons convention, and chemical substances which are already on the Export Warning List.

United States Government, Department of Defense. *Soviet Military Power: Prospects for Change 1989*. Washington, US Government Printing Office, 1989. 159 p.

This analysis, part of an annual series produced by the United States Department of Defense since 1981, presents an American perspective of Soviet military power, as well as the prospects for change within the Soviet military infrastructure. A preface by Secretary of Defense Richard Cheney demonstrates the caution with which the United States Government still views the Soviet military, despite declarations of budget cutbacks and troop withdrawal: "It is . . . clear that despite the dramatic changes occurring in the Soviet Union and the Soviet leadership's declaration of benign *intentions* toward the Western democracies, Soviet military *capabilities* continue to constitute a major threat to our security." The study is divided into two parts, the first of which is titled "The Nature of the Soviet Challenge". This section examines Soviet defence policy, strategy, command structure, foreign policy, military resource allocation and production, nuclear forces, and general-purpose forces. Similar United States and Soviet weapon systems and types are often directly compared. The second section, "An Assessment of the Balance", deals with the strategic aspects of United States and Soviet security. The strategic forces balance is analysed, and the proposed START treaty limitations are compared. NATO, deterrence strategy, the impact of Gorbachev's announced reductions, conventional forces operations, long-term trends, and a global perspective are addressed. Regional conflicts involving the super-Powers are discussed, and the technology/research and development trends for both are compared. The assessment for the future provided in the conclusion is, predictably, one of prudence and uncertainty.

Further Publications

Disarmament is unable to publish reviews of all publications which have been sent to the editor. The following is a selection of items received recently.

Albinski, Henry S., et al. *The South Pacific: Political, Economic, and Military Trends*. McLean, Virginia, Brassey's (US), 1989. 106 p.

Anthony, Ian. *The Naval Arms Trade*. Oxford, Oxford University/SIPRI, 1990. 221 p.

Baek, Kwang-Il, Ronald D. McLaurin and Chung-in Moon, eds. *The Dilemma of Third World Defense Industries: Supplier Control or Recipient Autonomy?* Boulder, Colorado, Westview Press, 1989. 278 p.

Bailey, George. *The Perception Mongers: Reflections on Soviet Propaganda*. London, Institute for European Defence and Strategic Studies, 1990. 39 p. (Occasional Paper No. 44)

Ball, Desmond. *Soviet Signals Intelligence (SIGINT): Intercepting Satellite Communications*. Canberra, Australia, Australian National University, 1989. 151 p. (Canberra Paper on Strategy and Defence No. 53)

Bosch, Olivia, ed. *Short Range Nuclear Forces: Modernisation and Arms Control*. London, The Council for Arms Control, November 1989. 74 p.

Bowker, Mike, and Phil Williams. *Superpower Detente: A Reappraisal*. London, SAGE, 1988. 277 p.

Brown, Gary. *Breaking the American Alliance: An Independent National Security Policy for Australia*. Canberra, Australia, Australian National University, 1989. 171 p. (Canberra Paper on Strategy and Defence No. 54)

Cimbala, Stephen J., ed. *The Soviet Challenge in the 1990s*. Westport, Connecticut, Praeger, 1989. 303 p.

Davis, Paul K. *Toward a Conceptual Framework for Operational Arms*

Control in Europe's Central Region. Santa Monica, California, RAND Corporation, November 1988. 81 p. (RAND Strategy Assessment Center Report)

Donnelly, C. N., et al. *Gorbachev: Economics and Defense 1989*. United Kingdom. RMA Sandhurst, March 1989. 210 p.

Dykes, John. *The Soviet Navy in an Era of Change*. United Kingdom, RMA Sandhurst, October 1989. 29 p.

Eisenstein, Maurice. *Arms Control and Disarmament: The New Intra-Alliance Debate*. Santa Monica, California, RAND Corporation, 1989. 13 p. (RAND Study No. P-7575)

Fondation pour les études de défense nationale (FEDN). *La Politique de Défense de la France: textes et documents*. Paris, FEDN, 1989. 331 p.

Gambles, Ian. *Prospects for West European Security Cooperation*. London, Brassey's, 1989. 83 p. (IISS Adelphi Paper No. 244)

Gold, David. "The impact of defense spending on investment, productivity, and economic growth". Washington, D.C., Defense Budget Project, February 1990. 84 p.

Groupe de recherche et d'information sur la paix (GRIP). *Memento défense—désarmament 1989*. Brussels, GRIP, 1989. 280 p.

Harle, Vilho, ed. *Studies in the History of European Peace Ideas*. Tampere, Finland, TAPRI, 1989. 144 p.

Heisbourg, François, ed. *The Changing Strategic Landscape*. Hamden, Connecticut, Archon Books/IISS, 1989. 374 p.

Hummel, Hartwig. *The Policy of Arms Export Restrictions in Japan*. Yokohama, Japan, International Peace Research Institute Meigaku, 1988. 74 p. (PRIME Occasional Paper No. 4)

Ispahani, Mahnaz. *Pakistan: Dimensions of Security*. London, Brassey's, 1990. 73 p. (IISS Adelphi Paper No. 246)

Joenniemi, Pertti. *Discourse on Deterrence*. Tampere, Finland, TAPRI, 1989. 104 p. (Current Research on Peace and Violence Paper No. 2)

Kanter, Arnold. "Nuclear modernization and arms control in NATO". Santa Monica, California, RAND Corporation, December 1988. 35 p. (RAND Note No.N-2896-FF)

Kodama, Katsuya, and Unto Vesa, eds. *Towards a Comparative Analysis of Peace Movements*. Hampshire, United Kingdom, Dartmouth, 1990. 290 p.

Kunzendorff, Volker. *Verification in Conventional Arms Control*. London, Brassey's, 1989. 80 p. (IISS Adelphi Paper No. 245)

Lee, Ngok. *China's Defence Modernisation and Military Leadership*. Sydney, Pergamon Press, 1989. 395 p.

Lewis, Kevin N. "Limitations on tactical missile defences: negotiated and otherwise". Santa Monica, California, RAND Corporation, 1989. 31 p. (RAND Study No. P-7476)

Lucas, Michael R. *The Western Alliance after INF: Redefining U.S. Policy Toward Europe and the Soviet Union*. Boulder, Colorado, Rienner, 1990. 266 p.

Mack, Andrew. *Alternative Defence Concepts: the European Debate*. Canberra, Australian National University, 1989. 39 p. (Working Paper No. 68)

Muller, Jean-Marie. "Et si nous décidions de ne plus faire de complexe militaro-industriel? Analyses et propositions pour une réduction significative des dépenses d'armement". Montargis, France, MAN, 1989. 40 p.

Niemelä, Pirkko, et al. *Perceived Peace-Mindedness of the Superpowers: Images of the USA and the USSR*. Tampere, Finland, TAPRI, 1989. 51 p. (TAPRI Occasional Paper No. 37)

Reimers, Roland. *The Technological Aspects of Remote Sensing for Verification Purposes*. Hamburg, Institut für Friedensforschung und Sicherheitspolitik, December 1989. 59 p. (Research Paper No. 42)

Royal Norwegian Ministry of Foreign Affairs. "Research report on verification of a chemical weapons convention: headspace gas chromatography, a new technique in verification of alleged use of chemical warfare agents (part VII)". Oslo, Royal Norwegian Ministry of Foreign Affairs, July 1989. 40 p.

Sloan, Stanley R., ed. *NATO in the 1990s*. McLean, Virginia, Pergamon-Brassey's, 1989. 347 p.

Stoessinger, John G. *Why Nations Go To War*. 5th edition. New York, St. Martin's Press, 1990. 226 p.

Tetlock, Philip E., et al., eds. *Behavior, Society and Nuclear War, Volume I*. Oxford, Oxford University, 1989. 401 p.

Walker, Mark. *German National Socialism and the Quest for Nuclear Power: 1939-1949*. Cambridge: Cambridge University, 1989. 290 p.

Chronicle of Disarmament Activities

6 February–late April 1990
Conference on Disarmament, Geneva

5-16 March 1990
Workshop on Conflict Resolution, Crisis Prevention and Management and Confidence-Building among African States, Arusha, Tanzania

19-28 March 1990
Third Session of the Group of Qualified Governmental Experts to Update the Study on Nuclear Weapons, New York

29-30 March
Meeting of the Group of Experts on the Establishment of a Nuclear-Weapons Free Zone in the Middle East, New York

16-19 April
New Trends in Science and Technology: Implications for International Peace and Security, Sendai, Japan

16-20 April
Meeting of the Group of Qualified Experts to Investigate South Africa's Ballistic Missile Capability, Geneva

16-20 April
Ad Hoc Committee on the Indian Ocean as a Zone of Peace, New York

23 April–2 May
Third Session of the Preparatory Committee for the fourth Review Conference of the States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Geneva

25-28 April
Symposium on Transparency in International Arms Transfers: Initiatives of Governments and Possible Multilateral Action, Florence, Italy

6-10 May
Workshop on Security and Disarmament in Africa, Cairo, Egypt

7-29 May
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Fourth Session of the Expert Study Group on Nuclear Weapons, New York

June-August
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